No. 126, Original

In The
Supreme Court of the United States

STATE OF KANSAS,

Plaintiff,

v.

STATE OF NEBRASKA

and

STATE OF COLORADO,

Defendants.

APPENDICES TO REPORT OF THE SPECIAL MASTER

WILLIAM J. KAYATTA, JR.
Circuit Judge
Sitting as Special Master
156 Federal Street
Portland, Maine 04101
(207) 699-3600

November 15, 2013

COCKLE LEGAL BRIEFS (800) 225-6964
WWW.COCKLELEGALBRIEFS.COM

APPENDIX TABLE OF CONTENTS

Appendix A: Draft Decree A1

Appendix B: Republican River Compact B1

Appendix C: Map of Republican River Basin C1

Appendix D: Docket Sheet D1

Appendix E: Narrative Text of Final Settlement Stipulation E1

Appendix F: Technical Changes Associated With Five-Run Solution F1

Appendix G: Description of Parties' Maneuvers With Respect to Remedies On The Accounting Issue G1

Appendix H: Summary of Kansas' Damage Presentation H1

Appendix I: Summary of Evidence Regarding the Valuation of Water I1

APPENDIX A

PROPOSED DECREE

STATE OF KANSAS

v.

STATE OF NEBRASKA and STATE OF COLORADO

No. 126, Original

Decided _____

Decree Entered _____

Decree effecting this Court's Opinion of _____, ___ S. Ct. ___, (2013)

DECREE

The Court having exercised original jurisdiction over this controversy between three sovereign States; the issues having been tried before the Special Master appointed by the Court; the Court having received briefs and heard oral argument on the parties' exceptions to the Report of the Special Master; and the Court having issued its Opinion on all issues announced in ___ S. Ct. ___ (2013),

IT IS HEREBY ORDERED, ADJUDGED, DECLARED AND DECREED AS FOLLOWS:

1. The RRCA Accounting Procedures are hereby reformed as shown on the attached Appendix ___ to be effective for the accounting of Compact Year 2007 and thereafter.

2. Nebraska is not liable for evaporative losses from Harlan County Lake during 2006.

3. Evaporation from the Non-Federal Reservoirs located in Nebraska is a Beneficial Consumptive Use under the Compact and must be accounted for as such.

4. Nebraska's consumption in 2005 and 2006 exceeded its Compact allocation by 70,869 acre feet, said amount equaling the combined rather than average exceedences for those two years.

5. Nebraska must pay Kansas within sixty (60) days of the date of this Order, Five Million Five Hundred Thousand Dollars ($5,500,000.00).

6. Except as herein provided, the claims of all parties in this action are denied and their prayers for relief dismissed with prejudice.

7. The parties' respective responsibilities for the fees and costs awarded to the Special Master are as follows: Kansas (40%); Nebraska (40%); and Colorado (20%).

8. The parties' previous payments made to the Special Master and the printer of the Report of the Special Master discharge in full their respective obligations to pay for or share among themselves fees and costs awarded to the Special Master together with any costs that might have otherwise been assessed in this action.

9. The Court retains jurisdiction to entertain such further proceedings, enter such orders, and

issue such writs as it may from time to time deem necessary or desirable to give proper force and effect to this Decree.

APPENDIX B

The Republican River Compact as
Enacted by Congress
57 Stat. 86 (1943)

AN ACT

To grant the consent of Congress to a compact entered into by the States of Colorado, Kansas, and Nebraska relating to the waters of the Republican River Basin, to make provisions concerning the exercise of Federal jurisdiction as to those waters, to promote flood control in the Basin, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the consent of Congress is hereby given to the compact authorized by the Act entitled "An Act granting the consent of Congress to the States of Colorado, Kansas, and Nebraska to negotiate and enter into a compact for the division of the waters of the Republican River", approved August 4, 1942. (Public Law 696, Seventy-seventh Congress; 56 Stat. 736), signed by the commissioners for the States of Colorado, Kansas, and Nebraska at Lincoln, Nebraska, on December 31, 1942, and thereafter ratified by the Legislatures of the States of Colorado, Kansas, and Nebraska, which compact reads as follows:

"REPUBLICAN RIVER COMPACT

"The States of Colorado, Kansas, and Nebraska, parties signatory to this compact (hereinafter referred

to as Colorado, Kansas, and Nebraska, respectively, or individually as a State, or collectively as the States), having resolved to conclude a compact with respect to the waters of the Republican River Basin, and being duly authorized therefor by the Act of the Congress of the United States of America, approved August 4, 1942, (Public No. 696, 77th Congress, Chapter 545, 2nd Session) and pursuant to Acts of their respective Legislatures have, through their respective Governors, appointed as their Commissioners:

M.C. Hinderlider, for Colorado
George S. Knapp, for Kansas
Wardner G. Scott, for Nebraska

who, after negotiations participated in by Glenn L. Parker, appointed by the President as the Representative of the United States of America, have agreed upon the following articles:

"Article I

"The major purposes of this compact are to provide for the most efficient use of the waters of the Republican River Basin (hereinafter referred to as the 'Basin') for multiple purposes; to provide for an equitable division of such waters; to remove all causes, present and future, which might lead to controversies; to promote interstate comity; to recognize that the most efficient utilization of the waters within the Basin is for beneficial consumptive use; and to promote joint action by the States and the United

States in the efficient use of water and the control of destructive floods.

"The physical and other conditions peculiar to the Basin constitute the basis for this compact, and none of the States hereby, nor the Congress of the United States by its consent, concedes that this compact establishes any general principle or precedent with respect to any other interstate stream.

"Article II

"The Basin is all the area in Colorado, Kansas, and Nebraska, which is naturally drained by the Republican River, and its tributaries, to its junction with the Smoky Hill River in Kansas. The main stem of the Republican River extends from the junction near Haigler, Nebraska, of its North Fork and the Arikaree River, to its junction with Smoky Hill River near Junction City, Kansas. Frenchman Creek (River) in Nebraska is a continuation of Frenchman Creek (River) in Colorado. Red Willow Creek in Colorado Red Willow Creek in Colorado is not identical with the stream having the same name in Nebraska. A map of the Basin approved by the Commissioners is attached and made a part hereof.

"The term 'Acre-foot', as herein used, is the quantity of water required to cover an acre to the depth of one foot and is equivalent to forty-three thousand, five hundred sixty (43,560) cubic feet.

"The term 'Virgin Water Supply', as herein used, is defined to be the water supply within the Basin undepleted by the activities of man.

"The term 'Beneficial Consumptive Use' is herein defined to be that use by which the water supply of the Basin is consumed through the activities of man, and shall include water consumed by evaporation from any reservoir, canal, ditch, or irrigated area.

"Beneficial consumptive use is the basis and principle upon which the allocation of water hereinafter made are predicated.

"Article III

"The specific allocations in acre-feet hereinafter made to each State are derived from the computed average annual virgin water supply originating in the following designated drainage basins, or parts thereof, in the amounts shown:

"North Fork of the Republican River drainage basin in Colorado, 44,700 acre-feet;

"Arikaree River drainage basin, 19,610 acre-feet;

"Buffalo Creek drainage basin, 7,890 acre-feet;

"Rock Creek drainage basin, 11,000 acre-feet;

"South Fork of the Republican River drainage basin, 57,200 acre-feet;

"Frenchman Creek (River) drainage basin in Nebraska, 98,500 acre-feet;

"Blackwood Creek drainage basin 6,800 acre-feet;

"Driftwood Creek drainage 7,300 acre-feet;

"Red Willow Creek drainage basin in Nebraska, 21,900 acre-feet;

"Medicine Creek drainage basin, 50,800 acre-feet;

"Beaver Creek drainage basin, 16,500 acre-feet;

"Sappa Creek drainage basin, 21,400 acre-feet;

"Prairie Dog Creek drainage basin, 27,600 acre-feet;

"The North Fork of the Republican River in Nebraska and the main stem of the Republican River between the junction of the North Fork and Arikaree River and the lowest crossing of the river at the Nebraska-Kansas state line and the small tributaries thereof, 87,700 acre-feet.

"Should the future computed virgin water supply of any source vary more than ten (10) per cent from the virgin water supply as hereinabove set forth, the allocations hereinafter made from such source shall be increased or decreased in the relative proportion that the future computed virgin water supply of such source bears to the computed virgin water supply used herein.

"Article IV

"There is hereby allocated for beneficial consumptive use in Colorado, annually, a total of fifty-four

thousand, one hundred (54,100) acre-feet of water. This total is to be derived from the sources and in the amounts hereinafter specified and is subject to such quantities being physically available from those sources:

"North Fork of the Republican River drainage basin, 10,000 acre-feet;

"Arikaree River drainage basin, 15,400 acre-feet;

"South Fork of the Republican River drainage basin, 25,400 acre-feet;

"Beaver Creek drainage basin, 3,300 acre-feet; and

"In addition, for beneficial consumptive use in Colorado, annually, the entire water supply of the Frenchman Creek (River) drainage basin in Colorado and of the Red Willow Creek drainage basin in Colorado.

"There is hereby allocated for beneficial consumptive use in Kansas, annually, a total of one hundred ninety thousand, three hundred (190,300) acre-feet of water. This total is to be derived from the sources and in the amounts hereinafter specified and is subject to such quantities being physically available from those sources:

"Arikaree River drainage basin, 1,000 acre-feet;

"South Fork of the Republican River drainage basin, 23,000 acre-feet;

"Driftwood Creek drainage basin, 500 acre-feet;

"Beaver Creek drainage basin, 6,400 acre-feet;

"Sappa Creek drainage basin, 8,800 acre-feet;

"Prairie Dog Creek drainage basin, 12,600 acre-feet;

"From the main stem of the Republican River upstream from the lowest crossing of the river at the Nebraska-Kansas state line and from water supplies of upstream basins otherwise unallocated herein, 138,000 acre-feet; provided, that Kansas shall have the right to divert all or any portion thereof at or near Guide Rock, Nebraska; and

"In addition there is hereby allocated for beneficial consumptive use in Kansas, annually, the entire water supply originating in the Basin downstream from the lowest crossing of the river at the Nebraska-Kansas state line.

"There is hereby allocated for beneficial consumptive use in Nebraska, annually, a total of two hundred thirty-four thousand, five hundred (234,500) acre-feet of water. This total is to be derived from the sources and in the amounts hereinafter specified and is subject to such quantities being physically available from those sources:

"North Fork of the Republican River drainage basin in Colorado, 11,000 acre-feet;

"Frenchman Creek (River) drainage basin in Nebraska, 52,800 acre-feet;

"Rock Creek drainage basin, 4,400 acre-feet;

"Arikaree River drainage basin, 3,300 acre-feet;

"Buffalo Creek drainage basin, 2,600 acre-feet;

"South Fork of the Republican River drainage basin, 800 acre-feet;

"Driftwood Creek drainage basin, 1,200 acre-feet;

"Red Willow Creek drainage basin in Nebraska, 4,200 acre-feet;

"Medicine Creek drainage basin, 4,600 acre-feet;

"Beaver Creek drainage basin, 6,700 acre-feet;

"Sappa Creek drainage basin, 8,800 acre-feet;

"Prairie Dog Creek drainage basin, 2,100 acre-feet;

"From the North Fork of the Republican River in Nebraska, the main stem of the Republican River between the junction of the North Fork and Arikaree River and the lowest crossing of the river at the Nebraska-Kansas state line, from the small tributaries thereof, and from water supplies of up stream basins otherwise unallocated herein, 132,000 acre-feet.

"The use of the waters hereinabove allocated shall be subject to the laws of the State, for use in which the allocations are made.

"Article V

"The judgment and all provisions thereof in the case of Adelbert A. Weiland, as State Engineer of Colorado, et al. v. The Pioneer Irrigation Company, decided June 5, 1922, and reported in 259 U.S. 498, affecting the Pioneer Irrigation ditch or canal, are hereby recognized as binding upon the States, and Colorado, through its duly authorized officials, shall have the perpetual and exclusive right to control and regulate diversions of water at all times by said canal in conformity with said judgment.

"The water heretofore adjudicated to said Pioneer Canal by the District Court of Colorado, in the amount of fifty (50) cubic feet per second of time is included in and is a part of the total amounts of water hereinbefore allocated for beneficial consumptive use in Colorado and Nebraska.

"Article VI

"The right of any person, entity, or lower State to construct, or participate in the future construction and use of any storage reservoir or diversion works in an upper State for the purpose of regulating water herein allocated for beneficial consumptive use in such lower State, shall never be denied by an upper State; provided, that such right is subject to the rights of the upper State.

"Article VII

"Any person, entity, or lower State shall have the right to acquire necessary property rights in an upper State by purchase, or through the exercise of the power of eminent domain, for the construction, operation and maintenance of storage reservoirs, and of appurtenant works, canals and conduits, required for the enjoyment of the privileges granted by Article VI; provided, however, that the grantees of such rights shall pay to the political subdivisions of the State in which such works are located, each and every year during which such rights are enjoyed for such purposes, a sum of money equivalent to the average annual amount of taxes assessed against the lands and improvements during the ten years preceding the use of such lands, in reimbursement for the loss of taxes to said political subdivisions of the State.

"Article VIII

"Should any facility be constructed in an upper State under the provisions of Article VI, such construction and the operation of such facility shall be subject to the laws of such upper State.

"Any repairs to or replacements of such facility shall also be made in accordance with the laws of such upper State.

"Article IX

"It shall be the duty of the three States to administer this compact through the official in each State who is now or may hereafter be charged with the duty of administering the public water supplies, and to collect and correlate through such officials the data necessary for the proper administration of the provisions of this compact. Such officials may, by unanimous action, adopt rules and regulations consistent with the provisions of this compact.

"The United States Geological Survey, or whatever federal agency may succeed to the functions and duties of that agency, in so far as this compact is concerned, shall collaborate with the officials of the States charged with the administration of this compact in the execution of the duty of such officials in the collection, correlation, and publication of water facts necessary for the proper administration of this compact.

"Article X

"Nothing in this compact shall be deemed:

"(a) To impair or affect any rights, powers or jurisdiction of the United States, or those acting by or under its authority, in, over, and to the waters of the Basin; nor to impair or affect the capacity of the United States, or those acting by or under its authority, to acquire rights in and to the use of waters of the Basin;

"(b) To subject any property of the United States, its agencies or instrumentalities, to taxation by any State, or subdivision thereof, nor to create an obligation on the part of the United States, its agencies or instrumentalities, by reason of the acquisition, construction, or operation of any property or works of whatsoever kind, to make any payments to any State or political subdivision thereof, state agency, municipality, or entity whatsoever in reimbursement for the loss of taxes;

"(c) To subject any property of the United States, its agencies or instrumentalities, to the laws of any State to any extent other than the extent these laws would apply without regard to this compact.

"Article XI

"This compact shall become operative when ratified by the Legislature of each of the States, and when consented to by the Congress of the United States by legislation providing, among other things, that:

"(a) Any beneficial consumptive uses by the United States, or those acting by or under its authority, within a State, of the waters allocated by this compact, shall be made within the allocations hereinabove made for use in that State and shall be taken into account in determining the extent of use within that State.

"(b) The United States, or those acting by or under its authority, in the exercise of rights or powers arising from whatever jurisdiction the United States has in, over, and to the waters of the Basin shall recognize, to the extent consistent with the best utilization of the waters for multiple purposes, that beneficial consumptive use of the waters within the Basin is of paramount importance to the development of the Basin; and no exercise of such power or right thereby that would interfere with the full beneficial consumptive use of the waters within the Basin shall be made except upon a determination, giving due consideration to the objectives of this compact and after consultation with all interested federal agencies and the state officials charged with the administration of this compact, that such exercise is in the interest of the best utilization of such waters for multiple purposes.

"(c) The United States, or those acting by or under its authority, will recognize any established use, for domestic and irrigation purposes, of the waters allocated by this compact which may be impaired by the exercise of federal jurisdiction in, over, and to such waters; provided, that such use is being exercised beneficially, is valid under the laws of the appropriate State and in conformity with this compact at that time of the impairment thereof, and was validly initiated under state law prior to the initiation or authorization of the federal program or project which causes such impairment.

"IN WITNESS WHEREOF, the Commissioners have signed this compact in quadruplicate original, one of which shall be deposited in the archives of the Department of State of the United States of America and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each of the State.

"Done in the City of Lincoln, in the State of Nebraska, on the 31st day of December, in the year of our Lord, one thousand nine hundred forty-two.

"M.C. HINDERLIDER
"Commissioner for Colorado
"GEORGE S. KNAPP
"Commissioner for Kansas
WARDNER G. SCOTT
"Commissioner for Nebraska

"I have participated in the negotiations leading to this proposed compact and propose to report to the Congress of the United States favorably thereon.

"GLENN L. PARKER
"Representative of the United States"

Sec. 2(a) In order that the conditions stated in article XI of the compact hereby consented to shall be met and that the compact shall be and continue to be operative, the following provisions are enacted –

(1) any beneficial consumptive uses by the United States, or those acting by or under its authority, within a State, of the waters allocated by such compact, shall be made within the allocations made by such

compact for use in that State and shall be taken into account in determining the extent of use within that State;

(2) the United States, or those acting by or under its authority, in the exercise of rights or powers arising from whatever jurisdiction the United States has in, over, and to the waters of the Basin shall recognize, to the extent consistent with the best utilization of the waters from multiple purposes, that beneficial consumptive use of the waters within the Basin is of paramount importance to the development of the Basin; and no exercise of such power or right thereby that would interfere with the full beneficial consumptive use of the waters within the Basin shall be made except upon a determination, giving due consideration to the objectives of such compact and after consultation with all interested Federal agencies and the State officials charged with the administration of such compact, that such exercise is in the interest of the best utilization of such waters for multiple purposes.

(3) the United States, or those acting by or under its authority, will recognize any established use, for domestic and irrigation purposes, of the waters allocated by such compact which may be impaired by the exercise of Federal jurisdiction, in, over, and to such waters: *Provided,* That such use is being exercised beneficially, is valid under the laws of the appropriate State and in conformity with such compact at the time of the

impairment thereof, and was validly initiated under State law prior to the initiation or authorization of the Federal program or project which causes such impairment.

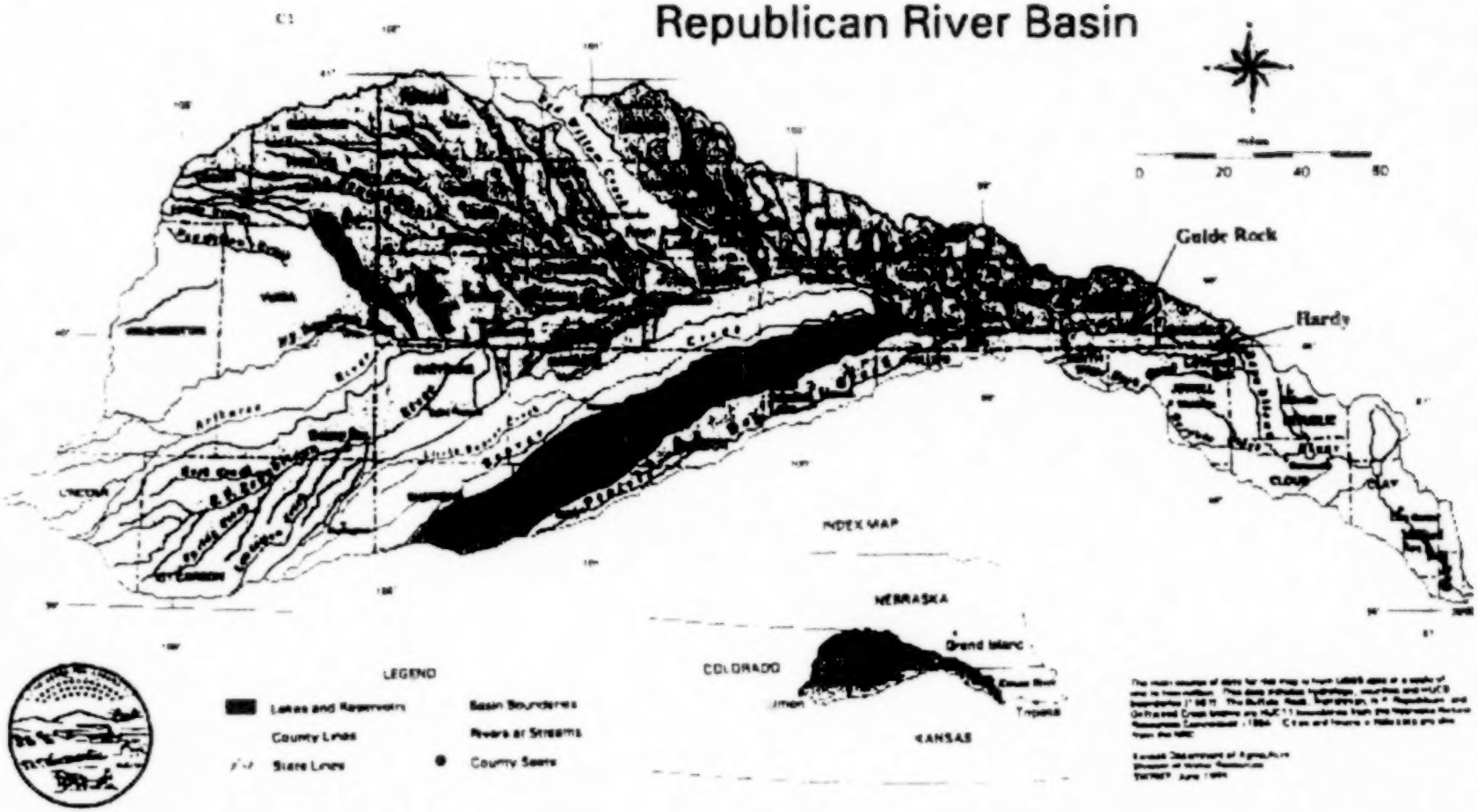
(b) As used in this section –

(1) "beneficial consumptive uses" has the same meaning as when used in the compact consented to by Congress by this Act; and

(2) "Basin" refers to the Republican River Basin as shown on the map attached to and made a part of the original of such compact deposited in the archives of the Department of State.

Approved May 26, 1943.

APPENDIX C


Republican River Basin
Gelde Rock
Hardy
INDEX MAP
NEBRASKA
COLORADO
KANSAS
LEGEND
Lakes and Reservoirs
County Lines
State Lines
Basin Boundaries
Rivers or Streams
County Seats

APPENDIX D

Kansas v. Nebraska and Colorado No. 126, Original

The official docket sheet for this case, as maintained by the Clerk of the Supreme Court of the United States, is available *online*. The official docket sheet does not contain entries for papers filed directly with the Special Master. The Special Master has prepared the following docket sheet which includes all filings made with or by the Special Master, in ".pdf" format.

William J. Kayatta, Jr., Special Master
156 Federal Street
Portland, Maine 04101

Docket No.	Date	Filings
1	2010-5-3	Kansas' Motion for Leave to File Petition, Petition, and Brief in Support
2	2010-7-1	Nebraska's Brief in Response to Kansas' Motion for Leave to File Petition (re 1)
3	2010-7-6	Colorado's Response to Kansas' Motion for Leave to File Petition (re 1)
4	2010-7-20	Kansas' Reply on Motion for Leave to File (re 1,2,3)
5	2011-2-28	Brief for the United States as Amicus Curiae (re 1,2,3,4)
6	**2011-4-4**	**Order in Pending Case** (re 1)
7	**2011-4-6**	**Oath of William J. Kayatta, Jr.**
8	**2011-4-8**	**Notice of Initial Telephone Conference**

9	**2011-4-28**	**Case Management Order No. 1**
10	**2011-4-28**	**Case Management Plan**
11	**2011-4-28**	**Distribution List for Service of Documents and Email Filed with the Special Master**
12	2011-5-4	Joint Motion Seeking Suspension of Certain Deadlines (re 9,10)
13	**2011-5-4**	**Order Concerning Joint Motion of May 4, 2011, Seeking Suspension of Certain Deadlines** (re 12)
14	**2011-5-5**	**Notice of Filing of Official Transcript of Telephone Conference With Counsel held on April 22, 2011**
15	**2011-5-5**	**Notice of Status Conference and Hearing**
16	2011-5-10	Kansas' Petition
17	2011-5-11	Kansas' Objections and Comments on Case Management Order No. 1 and Case Management Plan (re 9,10)
18	2011-5-11	Nebraska's Objections to Case Management Order No. 1 and the Case Management Plan (re 9,10)
19	2011-5-11	Colorado's Statement Regarding Case Management Order and Case Management Plan (re 9,10)
20	**2011-5-17**	**Order on Objections to Case Management Order No. 1 and the Case Management Plan** (re 17,18,19)

21	2011-5-31	Motion for Leave to File Counterclaims of the State of Nebraska
22	2011-5-31	Brief in Support of Motion for Leave to File Counterclaims of the State of Nebraska (re 21)
23	2011-5-31	Answer and Counterclaims of the State of Nebraska (re 16)
24	2011-5-31	Answer of the State of Colorado (re 16)
25	2011-5-31	United States' Statement of Participation
26	2011-6-3	Certificate of Service for Kansas' First Set of Interrogatories and Requests for Production to the State of Nebraska
27	2011-6-10	Certificate of Service for Nebraska's First Set of Interrogatories, Requests for Admission and Requests for Production to all parties
28	2011-6-15	Nebraska's Brief Identifying Size of Allocation Exceedance
29	2011-6-15	Nebraska's Brief Concerning Changes to RRCA Accounting Procedures
30	2011-6-15	Colorado's Position on Findings that Would be Required for the Court to Order a Change to the RRCA Accounting Procedures
31	2011-6-15	Colorado's Letter to Special Master Stating Colorado's Position Regarding Size of Nebraska's Exceedance of its Allocations in 2005 and 2006

32	2011-6-15	Kansas' Brief re Amount of Nebraska's Exceedance
33	2011-6-15	Kansas' Brief re Changes to the Accounting Procedures
34	2011-6-15	Kansas' Description of Proposed Discovery from Non-Parties re Nebraska Profits
35	2011-6-23	Nebraska's Notice of Need for Additional Time to Respond to Kansas' First Set of Interrogatories and Requests for Production (re 26)
36	2011-6-23	Certificate of Service for Nebraska's Initial Objections to Kansas' First Set of Interrogatories and Requests for Production
37	**2011-6-24**	**Notice of Telephone Conference to be held on June 27, 2011**
38	2011-6-27	Letter of United States re non-participation in telephone conference scheduled for June 27, 2011 (re 37)
39	2011-6-29	Answer of the State of Colorado to the State of Nebraska's Counterclaims (re 23)
40	2011-6-30	State of Nebraska's Objection in Part to United States' Statement of Participation (re 25)
41	2011-6-30	Kansas' Opposition to Nebraska's Motion for Leave to File Counterclaims (re 21)

42	2011-6-30	Certificate of Service for Kansas' Initial Objections to Nebraska's First Set of Requests for Production
43	**2011-6-30**	**Order on Nebraska's Notice of Need for Additional Time to Respond to Kansas' First Set of Interrogatories and Requests for Production, and Report of June 27, 2011, Telephone Conference** (re 26,35)
44	2011-7-5	Certificate of Service for Nebraska's Final Objections to Kansas' First Set of Interrogatories and Requests for Production
45	**2011-7-6**	**Notice of Filing of Official Transcript of Telephone Conference With Counsel held on June 27, 2011**
46	2011-7-7	State of Nebraska's Reply in Support of Motion for Leave to File Counterclaims (re 21,41)
47	2011-7-8	State of Nebraska's Response to State of Kansas' Brief Re Changes to the Accounting Procedures (re 33)
48	2011-7-8	State of Nebraska's Response to State of Kansas' Brief Re Amount of Nebraska's Exceedance (re 32)

49	2011-7-8	State of Colorado's Reply to State of Kansas' Brief Re Changes to the Accounting Procedures and State of Nebraska's Brief Concerning Changes to RRCA Accounting Procedures (re 29,33)
50	2011-7-8	Kansas' Reply Brief Re Amount of Nebraska's Exceedance (re 28)
51	2011-7-8	Kansas' Reply Brief Re Changes to the Accounting Procedures (re 29)
52	2011-7-11	Kansas' Certificate of Service for Response to Nebraska's First Set of Requests for Admission, Kansas' Second Set of Objections to Nebraska's First Set of Requests for Production and Kansas' Objections to Nebraska's First Set of Interrogatories
53	2011-7-15	First Joint Status Report
54	2011-7-15	Kansas' Certificate of Service for Second Set of Interrogatories and Requests for Production to the State of Nebraska
55	2011-7-18	Nebraska's Certificate of Service for Answers to Kansas' First Set of Interrogatories
56	2011-7-21	Nebraska's Certificate of Service for Initial Response to Kansas' First Set of Requests for Production
57	2011-7-23	Kansas' Post-Conference Submittal (re 21,41,46)

58	2011-7-25	Answer and Amended Counterclaims and Cross-Claim of the State of Nebraska (re 16)
59	2011-7-25	Kansas' Certificate of Service for Answers to Nebraska's First Set of Interrogatories and Requests for Production
60	2011-7-26	Nebraska's Certificate of Service for Second Set of Interrogatories, Requests for Admission and Requests for Production (First Set Addressing RRCA Accounting Procedure Changes) to all parties
61	**2011-7-28**	**Order Concerning the Time Within Which Kansas and Colorado Need Respond to the Amended Counterclaims and Cross-Claim of Nebraska** (re 57)
62	2011-8-2	Nebraska's Certificate of Service for First Supplemental Response to Kansas' First Set of Requests for Production
63	**2011-8-3**	**Transcript of Initial Telephone Conference held on April 22, 2011**
64	2011-8-4	Nebraska's Certificate of Service for Initial Objections to Kansas' Second Set of Interrogatories and Requests for Production
65	2011-8-5	Certificate of Service for State of Kansas' Subpoena to Produce Documents to Lower Republican Natural Resources District

66	2011-8-5	Certificate of Service for State of Kansas' Subpoena to Produce Documents to Tri- Basin Natural Resources District
67	2011-8-5	Certificate of Service for State of Kansas' Subpoena to Produce Documents to Middle Republican Natural Resources District
68	2011-8-5	Certificate of Service for State of Kansas' Subpoena to Produce Documents to Upper Republican Natural Resources District
69	2011-8-8	Answer of the State of Colorado to the State of Nebraska's Amended Counterclaims and Cross-Claim (re 58)
70	2011-8-8	Kansas' Answer to Nebraska's Amended Counterclaims (re 58)
71	**2011-8-9**	**Case Management Order No. 2**
72	**2011-8-9**	**Case Management Order No. 2 [Corrected]**
73	2011-8-15	Certificate of Service for Nebraska's Final Objections to Kansas' Second Set of Interrogatories and Requests for Production
74	2011-8-19	Second Joint Status Report
75	2011-8-19	Certificate of Service for State of Nebraska's Subpoena to Produce Documents Issued to the Kansas Bostwick Irrigation District

76	2011-8-19	Certificate of Service for State of Nebraska's Second Supplemental Response to Kansas' First Set of Requests for Production
77	2011-8-25	Certificate of Service for State of Nebraska's (Consolidated) Objections to Kansas' Requests for Production to the Republican River Natural Resources Districts
78	2011-8-29	Certificate of Service for State of Nebraska's Answers to Kansas' Second Set of Interrogatories
79	2011-8-29	Certificate of Service for State of Nebraska's First Set of Interrogatories, Requests for Admission and Requests for Production to the State of Colorado
80	2011-9-1	Certificate of Service for State of Colorado's First Set of Discovery Requests Directed to the State of Nebraska
81	2011-9-1	Certificate of Service for State of Nebraska's Subpoena to Produce Documents Issued to the Kansas State Farm Service Agency
82	2011-9-1	Certificate of Service for State of Nebraska's Subpoena to Produce Documents Issued to the United States Department of Agriculture, Natural Resources Conservation Service, Kansas Office

83	2011-9-1	Certificate of Service for State of Nebraska's Subpoena to Produce Documents Issued to the United States Department of Agriculture, Natural Resources Conservation Service, Nebraska Office
84	2011-9-1	Certificate of Service for State of Nebraska's Subpoena to Produce Documents Issued to the Prairie Land Electric Cooperative, Inc.
85	2011-9-1	Certificate of Service for State of Nebraska's Subpoena to Produce Documents Issued to the United States Department of Agriculture, Farm Services Agency, Nebraska State Office
86	2011-9-1	Certificate of Service for State of Nebraska's Subpoena to Produce Documents Issued to the Rolling Hills Electric Cooperative, Inc.
87	2011-9-1	Certificate of Service for Kansas' Objections to Nebraska's Second Set of Requests for Production
88	2011-9-1	Certificate of Service for Kansas' Objections to Nebraska's Second Set of Interrogatories
89	2011-9-1	Certificate of Service for Kansas' First Interrogatory and Request for Production to the State of Colorado

90	2011-9-1	State of Kansas' and Nebraska's Certificate of Service for Subpoena to Produce Documents to U.S. Department of Agriculture, Risk Management Agency
91	2011-9-1	State of Kansas' and Nebraska's Certificate of Service for Subpoena to Produce Documents to United States Bureau of Reclamation
92	2011-9-1	Kansas' Certificate of Service for Response to Nebraska's Second Set of Requests for Admission
93	2011-9-9	Certificate of Service for Kansas' Answers to Nebraska's Second Set of Interrogatories
94	2011-9-12	Certificate of Service for Nebraska's Response to Kansas' Second Set of Requests for Production
95	2011-9-16	Third Joint Status Report
96	2011-9-16	Stipulation of the States Concerning Accounting of Overuse by Nebraska
97	2011-9-16	State of Nebraska's Brief Identifying Potential Need to Proffer Parol Evidence
98	2011-9-16	Kansas' Statement on Evidence of Negotiations
99	2011-9-19	Colorado's Certificate of Service for Initial Objections to State of Nebraska's First Set of Requests for Production

100	2011-9-19	Colorado's Certificate of Service for Initial Objections to State of Kansas' First Set of Requests for Production
101	2011-9-19	Nebraska's Certificate of Service for (Consolidated) Response to Kansas' Requests for Production to the Republican River Natural Resources Districts
102	2011-9-21	Nebraska's Certificate of Service for Objections to Colorado's First Set of Interrogatories and Requests for Production
103	2011-9-26	Kansas' Certificate of Service for Response to Nebraska's Second Set of Requests for Production
104	2011-9-28	Colorado's Certificate of Service for Objections to Kansas' Interrogatory and Response to Request for Production
105	2011-9-28	Colorado's Certificate of Service for Objections to Nebraska's First Set of Interrogatories and Responses to Requests for Admission and Requests for Production
106	2011-10-6	Kansas' Unopposed Motion to Adjust Deadlines in Conformance with CMO No. 2 (re 72)
107	2011-10-13	Colorado's Certificate of Service for Response to Nebraska's First Set of Interrogatories
108	2011-10-13	Email from Kevin Spelts to Special Master

109	2011-10-13	Colorado's Certificate of Service for Response to Kansas' Interrogatory
110	2011-10-13	Colorado's Certificate of Service for Response to Nebraska's First Set of Interrogatories
111	**2011-10-14**	**Case Management Order No. 3** (re 106)
112	**2011-10-14**	**Case Management Plan No. 2**
113	2011-10-17	Nebraska's Certificate of Service for Answers to Colorado's First Request for Admission and Interrogatories
114	2011-10-21	Fourth Joint Status Report
115	2011-10-21	Kansas' Certificate of Service for Notice of Deposition of Dr. James Schneider and Subpoena Duces Tecum
116	2011-10-21	Kansas' Certificate of Service for Notice of Deposition of Dr. Ann Bleed and Subpoena Duces Tecum
117	2011-10-21	Kansas' Certificate of Service for Notice of Deposition of John Thorburn and Subpoena Duces Tecum
118	2011-10-21	Kansas' Certificate of Service for Notice of Deposition of Mike Clements and Subpoena Duces Tecum
119	2011-10-21	Kansas' Certificate of Service for Notice of Deposition of Dr. Jasper Fanning and Subpoena Duces Tecum

120	2011-10-21	Kansas' Certificate of Service for Notice of Deposition of Daniel L. Smith and Subpoena Duces Tecum
121	**2011-10-25**	**Order on Pro Se Request Concerning Filing and Dissemination of Ex Parte Submission** (re 108)
122	2011-10-28	Certificate of Service for Colorado's Response to Kansas' Request for Production
123	2011-10-28	Certificate of Service for Colorado's Response to Nebraska's First Set of Requests for Production
124	2011-10-28	Certificate of Service for the United States' Responses to Nebraska's Subpoenas to Produce Documents and for United States' Responses to Kansas' Subpoenas to Produce Documents
125	2011-10-28	Certificate of Service for Kansas' Notice of Kansas Bostwick Irrigation District Production
126	2011-10-31	Nebraska's Certificate of Service for Responses to Colorado's First Set of Requests for Production
127	2011-10-31	Nebraska's Certificate of Service for Third Supplemental Response to Kansas' First and Second Sets of Requests for Production

128	**2011-11-9**	**Order Unsealing and Lifting the Protective Order Restricting the Distribution of Ex Parte Submission** (re 108,121)
129	2011-11-18	Kansas' Certificate of Service for Initial Disclosure of Expert Testimony
130	2011-11-18	Nebraska's Certificate of Service for Initial Disclosure of Expert Testimony
131	2011-11-18	Fifth Joint Status Report
132	2011-12-9	Nebraska's Certificate of Service for Notice of Deposition of Aaron Thompson and Subpoena Duces Tecum
133	2011-12-16	Sixth Joint Status Report
134	**2012-1-11**	**Transcript of Telephone Conference of June 27, 2011**
135	**2012-1-11**	**Transcript of Status Conference Hearing of July 18, 2011**
136	2012-1-12	Kansas' Unopposed Motion to Add and Adjust Deadlines in Conformance with CMP No. 2 (re 112)
137	2012-1-19	Nebraska's Certificate of Service for Notice of Deposition of David Barfield and Subpoena Duces Tecum
138	2012-1-19	Nebraska's Certificate of Service for Notice of Deposition of Kenny Nelson and Subpoena Duces Tecum
139	2012-1-20	Seventh Joint Status Report

140	2012-1-23	Kansas' Certificate of Service of Notice of Deposition of Brian P. Dunnigan and Subpoena Duces Tecum
141	2012-1-23	Kansas' Certificate of Service of Notice of Deposition of Dr. James C. Schneider and Subpoena Duces Tecum
142	**2012-1-25**	**Notice of Telephone Conference to be held on January 31, 2012**
143	2012-1-29	Kansas' Certificate of Service for Notice of Cancellation of Deposition of Brian P. Dunnigan
144	**2012-2-1**	**Case Management Order No. 4** (re 136)
145	2012-2-2	Nebraska's Certificate of Service for Notice of Deposition of Mr. Samuel L. Perkins and Subpoena Duces Tecum
146	2012-2-2	Nebraska's Certificate of Service for Notice of Deposition of Dr. Joel R. Hamilton and Subpoena Duces Tecum
147	2012-2-2	Nebraska's Certificate of Service for Notice of Deposition of Dr. Norman L. Klocke and Subpoena Duces Tecum
148	2012-2-2	Nebraska's Certificate of Service for Notice of Deposition of Mr. Dale E. Book and Subpoena Duces Tecum

149	2012-2-2	Nebraska's Certificate of Service for Notice of Deposition of Mr. Scott Ross and Subpoena Duces Tecum
150	2012-2-2	Nebraska's Certificate of Service for Notice of Deposition of Mr. Steven P. Larson and Subpoena Duces Tecum
151	2012-2-2	Nebraska's Certificate of Service for Notice of Deposition of Mr. David L. Pope and Subpoena Duces Tecum
152	2012-2-2	Nebraska's Certificate of Service for Notice of Deposition of Dr. M. Henry Robison and Subpoena Duces Tecum
153	2012-2-2	Nebraska's Notice of Amendment to Appendix A of Case Management Plan No. 2 (re 112)
154	2012-2-6	Kansas' Certificate of Service for Notice of Deposition of Dr. Lee Wilson and Subpoena Duces Tecum
155	2012-2-6	Kansas' Certificate of Service for Notice of Deposition of Roger Patterson and Subpoena Duces Tecum
156	**2012-2-8**	**Notice of Telephone Conference to be held on April 24, 2012**
157	**2012-2-8**	**Appendix A (as amended) to Case Management Plan** (re 112,153)
158	2012-2-17	Eighth Joint Status Report

159	**2012-2-22**	**Notice of Filing of Official Transcript of Telephone Conference With Counsel held on January 31, 2012**
160	2012-2-22	Nebraska's Certificate of Service for Revised Notice of Deposition of Mr. Scott Ross and Subpoena Duces Tecum
161	2012-2-22	Nebraska's Certificate of Service for Revised Notice of Deposition of Mr. Samuel L. Perkins and Subpoena Duces Tecum
162	2012-2-22	Nebraska's Certificate of Service for Revised Notice of Deposition of Mr. David L. Pope and Subpoena Duces Tecum
163	2012-2-26	Email to Special Master re Discovery Dispute (attachments not included)
164	**2012-2-27**	**Notice of Telephone Conference to be held on February 29, 2012**
165	**2012-2-29**	**Notice of Telephone Conference to be held on March 23, 2012**
166	**2012-3-6**	**Notice of Filing of Official Transcript of Telephone Conference With Counsel held on February 29, 2012**
167	2012-3-6	Colorado's Notice of Amendment to Appendix A of Case Management Plan No. 2 (re 112)
168	2012-3-6	Substitution of Counsel for State of Colorado

169	**2012-3-6**	**Appendix A (as amended) to Case Management Plan** (re 112,167)
170	2012-3-8	Kansas' Motion to Compel and Brief in Support (re 163)
171	2012-3-15	Colorado's Response to Kansas' Motion to Compel (re 163,170)
172	2012-3-15	Nebraska's Response to Kansas' Motion to Compel and Brief in Support (re 163,170)
173	2012-3-16	Ninth Joint Status Report
174	2012-3-20	Kansas' Reply to Nebraska's and Colorado's Responses to Kansas' Motion to Compel (re 163,170,171,172)
175	2012-3-22	Nebraska's Certificate of Service for Notice of Deposition of Dr. Willem A. Schreuder and Subpoena Duces Tecum
176	2012-3-22	Nebraska's Certificate of Service for Notice of Deposition of Dale E. Book and Subpoena Duces Tecum
177	2012-3-22	Nebraska's Certificate of Service for Notice of Deposition of Brad Edgerton and Subpoena Duces Tecum
178	2012-3-22	Nebraska's Certificate of Service for Notice of Deposition of James E. Slattery and Subpoena Duces Tecum
179	2012-3-22	Nebraska's Certificate of Service for Notice of Deposition of Dick Wolfe and Subpoena Duces Tecum

180	2012-3-22	Nebraska's Certificate of Service for Notice of Deposition of L. Michael Brzon and Subpoena Duces Tecum
181	2012-3-22	Nebraska's Certificate of Service for Notice of Deposition of Steven P. Larson and Subpoena Duces Tecum
182	2012-3-22	Nebraska's Certificate of Service for Notice of Deposition of Marvin Swanda and Subpoena Duces Tecum
183	2012-3-29	Kansas' Certificate of Service for Notice of Deposition of Dr. James C. Schneider and Subpoena Duces Tecum
184	2012-3-29	Kansas' Certificate of Service for Notice of Deposition of Thomas E. Riley, P.E. and Subpoena Duces Tecum
185	2012-3-29	Kansas' Certificate of Service for Notice of Deposition of Brian P. Dunnigan and Subpoena Duces Tecum
186	2012-3-29	Kansas' Certificate of Service for Notice of Deposition of Dr. David Sunding and Subpoena Duces Tecum
187	2012-3-30	Kansas' List of Authorities re Willfulness and Remedies (re 163,170)
188	2012-3-30	Nebraska's Amended Notice of Deposition of Marvin Swanda and Subpoena Duces Tecum

189	2012-4-2	Nebraska's Notice of Supplemental Information on Kansas' Motion to Compel (re 163,170)
190	**2012-4-6**	**Notice of Filing of Official Transcript of Telephone Conference With Counsel held on March 23, 2012**
191	2012-4-6	Nebraska's Response to Kansas' List of Authorities re Willfulness and Remedies (re 163,170,187)
192	2012-4-6	Colorado's Response to Kansas' List of Authorities re Willfulness and Remedies (re 163,170,187)
193	2012-4-9	Nebraska's Certificate of Service for Withdrawal of Notice of Deposition of Dr. Willem A. Schreuder and Subpoena Duces Tecum
194	2012-4-9	Nebraska's Certificate of Service for Withdrawal of Notice of Deposition of James E. Slattery and Subpoena Duces Tecum
195	2012-4-9	Nebraska's Certificate of Service for Withdrawal of Notice of Deposition of Dick Wolfe and Subpoena Duces Tecum
196	2012-4-12	United States' Certificate of Service for Supplemental Response to Nebraska's Subpoena to Produce Documents Issued to the Department of the Interior, Bureau of Reclamation

197	2012-4-17	Kansas' Confidentiality Designation of Portions of the April 3, 2012 Deposition of L. Michael Brzon
198	2012-4-18	Colorado's Summary of Dispositive Motions
199	2012-4-18	Kansas' Summary of Intended Dispositive Motions
200	2012-4-20	Nebraska's Motion In Limine and Brief in Support to Preclude Trial Testimony, or in the Alternative, to Depose Witnesses Out of Time
201	2012-4-20	Tenth Joint Status Report
202	**2012-4-23**	**Order on Kansas' Motion to Compel** (re 163,170,171,172, 174,187,189,191,192)
203	2012-4-23	United States' Certificate of Service for Amended Supplemental Response to Nebraska's Subpoena to Produce Documents Issued to the Department of the Interior, Bureau of Reclamation
204	**2012-4-26**	**Case Management Order No. 5**
205	**2012-4-26**	**Order Concerning Nebraska's Motion In Limine to Preclude Trial Testimony, or in the Alternative, to Depose Witnesses Out of Time** (re 200)
206	**2012-4-30**	**Notice of Filing of Official Transcript of Telephone Conference With Counsel held on April 24, 2012**

207	2012-5-3	Nebraska's Certificate of Service for Supplemental Amended Notice of Deposition of Marvin Swanda and Subpoena Duces Tecum
208	2012-5-3	Nebraska's Certificate of Service for Supplemental Notice of Deposition of Aaron Thompson and Subpoena Duces Tecum
209	2012-5-7	Kansas' Objection/Request for Confirmation and Modification of CMO No. 5 (re 204)
210	**2012-5-9**	**Notice of Telephone Conference to be held on July 31, 2012**
211	**2012-5-14**	**Notice of Telephone Conference to be held on May 16, 2012**
212	2012-5-15	Kansas' Motion for an Order Holding Nebraska in Contempt and Brief in Support
213	2012-5-15	Kansas' Motion for Summary Judgment on Nebraska's Accounting Procedure Changes and Brief in Support
214	2012-5-15	Kansas' Motion for Partial Summary Judgment on Issues Related to the Amount of Nebraska's Violation and Brief in Support
215	2012-5-15	Colorado's Motion to Dismiss
216	2012-5-16	Colorado's and Nebraska's Notice of Stipulation and Request for Status Conference

217	**2012-5-18**	**Report of May 16, 2012, Telephone Conference**
218	**2012-5-18**	**Order on Kansas' Objection/Request for Confirmation and Modification of CMO No. 5** (re 209)
219	2012-5-21	Colorado's Declaration of Willem A. Schreuder, Ph.D. (re 216)
220	2012-5-21	Nebraska's Declaration of James C. Schneider (re 216)
221	**2012-5-23**	**Transcript of Telephone Conference of January 31, 2012**
222	**2012-5-23**	**Notice of Telephone Conference to be held on June 7, 2012**
223	2012-5-25	Kansas' Reply in Opposition to Change of Counterclaim (re 216)
224	2012-5-25	Declaration of Steven P. Larson (re 223)
225	2012-5-25	Kansas' Motion to Compel Disclosure of Stipulation and Related Settlement Agreements (re 216)
226	2012-5-30	Kansas' Motion for Designation of Rebuttal Experts
227	2012-5-30	Rebuttal Report by Spronk Water Engineers, Inc., Dale E. Book, P.E. (re 226)
228	2012-5-30	Rebuttal Report by NLK Engineering, Dr. Norman L. Klocke, P.E. (re 226)
229	2012-5-30	Rebuttal Report by Dr. Joel R. Hamilton and Dr. M. Henry Robison (re 226)

230	2012-5-30	Rebuttal Report by David W. Barfield, P.E. (re 226)
231	**2012-5-31**	**Notice of Filing of Official Transcript of Telephone Conference With Counsel held on May 16, 2012**
232	**2012-6-4**	**Transcript of Telephone Conference of February 29, 2012**
233	2012-6-6	Kansas' Notice of Posting of Rebuttal Materials (re 226,227,228,229,230)
234	2012-6-7	Colorado's Response to Kansas' Motion to Compel Disclosure of Stipulation and Related Settlement Agreements (re 225)
235	2012-6-7	Nebraska's Response to Kansas' Motion for Leave to Designate Rebuttal Experts Out of Time (re 226)
236	**2012-6-12**	**Report of June 7, 2012, Telephone Conference of Counsel**
237	2012-6-13	Kansas' Further Disclosures re Proposed Rebuttal Testimony of Dale E. Book, P.E., and David W. Barfield, P.E. (re 226)
238	2012-6-13	Rebuttal Report by David W. Barfield, P.E. (re 237)
239	2012-6-13	Rebuttal Report by Spronk Water Engineers, Inc., Dale E. Book, P.E. (re 237)
240	**2012-6-14**	**Notice of Filing of Official Transcript of Telephone Conference With Counsel held on June 7, 2012**

241	2012-6-15	Kansas' Response to Colorado's Motion to Dismiss (re 215)
242	2012-6-15	Kansas' Further Disclosures re Proposed Rebuttal Testimony of Dr. Joel R. Hamilton, Dr. M. Henry Robison, and Dr. Norman L. Klocke, P.E. (re 226)
243	2012-6-15	Rebuttal Report by Dr. Norman L. Klocke, P.E. (re 242)
244	2012-6-15	Rebuttal Report by Dr. Joel R. Hamilton and Dr. M. Henry Robison (re 242)
245	2012-6-15	Kansas' Reply Brief in Support of Motion to Compel Disclosure of Stipulation and Related Settlement Agreements (re 225,234)
246	2012-6-15	Nebraska's Response to Kansas' Motion for an Order Holding Nebraska in Contempt and Brief in Support (re 212)
247	2012-6-15	Nebraska's Response to Kansas' Motion for Partial Summary Judgment on Issues Related to the Amount of Nebraska's Violation and Brief in Support (re 214)
248	2012-6-15	Nebraska's Response to Kansas' Motion for Summary Judgment on Nebraska's Accounting Procedure Changes and Brief in Support (re 213)
249	2012-6-15	Nebraska's Response in Support of Colorado's Motion to Dismiss (re 215)

250	2012-6-15	Nebraska's and Colorado's Notice of Ex Parte Communication for In Camera Review (re 216,225,234,245)
251	2012-6-15	Nebraska's Certificate of Service for Fourth Supplemental Response to Kansas' Requests for Production and Supplemental Disclosure
252	2012-6-15	Colorado's Response to Kansas' Motion for an Order Holding Nebraska in Contempt and Brief in Support (re 212)
253	2012-6-15	Colorado's Response to Kansas' Motion for Summary Judgment on Nebraska's Accounting Procedure Changes and Brief in Support (re 213)
254	2012-6-15	Kansas' Motion for Reconsideration of Ruling on Timeliness or, in the Alternative, for Postponement of Trial on Nebraska's New Counterclaim, and for Other Relief (re 236)
255	2012-6-15	Declaration of Steven P. Larson (re 254)
256	2012-6-19	Notice of Corrected Filing of May 21, 2012 Declaration of Willem A. Schreuder (re 216,219)
257	2012-6-19	Nebraska's Response to Kansas' Further Justification for Request to Designate Rebuttal Experts (re 226,237,242)

258	2012-6-19	Kansas' Motion to Strike Nebraska's Response in Support of Colorado's Motion to Dismiss (re 249)
259	2012-6-19	Kansas' Reply in Support of its Motion for Designation of Rebuttal Experts (re 226,235,237,242,257)
260	2012-6-19	Nebraska's Certificate of Service for Notice of Deposition of Dale E. Book and Subpoena Duces Tecum
261	2012-6-19	Nebraska's Certificate of Service for Notice of Deposition of Joel R. Hamilton and Subpoena Duces Tecum
262	2012-6-19	Nebraska's Certificate of Service for Notice of Deposition of Dr. M. Henry Robison and Subpoena Duces Tecum
263	2012-6-19	Nebraska's Certificate of Service for Notice of Deposition of Dr. Norman L. Klocke and Subpoena Duces Tecum
264	2012-6-19	Email of Nebraska to Office of Special Master re Scheduling Dispute
265	2012-6-20	Nebraska's Certificate of Service for Notice of Deposition of David Barfield and Subpoena Duces Tecum
266	2012-6-20	Kansas' Letter to Special Master re Scheduling Dispute (re 264)

267	2012-6-20	Joint Letter of Nebraska and Colorado to Special Master re Scheduling Dispute (re 264,266)
268	2012-6-21	Email from Office of Special Master to Counsel re Scheduling Dispute (re 264,266,267)
269	2012-6-22	Colorado's Reply in Support of Colorado's Motion to Dismiss (re 215,241)
270	2012-6-22	Kansas' Reply in Support of its Motion for an Order Holding Nebraska in Contempt (re 212,246,252)
271	2012-6-22	Kansas' Reply in Support of its Motion for Summary Judgment on Nebraska's Accounting Procedure Changes (re 213,248,253)
272	2012-6-22	Kansas' Reply in Support of its Motion for Partial Summary Judgment on Issues Related to the Amount of Nebraska's Violation (re 214,247)
273	2012-6-25	Colorado's Notice of Amendment to Appendix A of Case Management Plan No. 2 (re 112)
274	2012-6-29	Nebraska's Notice of Disclosure of Stipulation (re 225,234,245)
275	2012-7-2	Kansas' Certificate of Service for Notice of Deposition of Dr. Willem A. Schreuder and Subpoena Duces Tecum
276	2012-7-2	Kansas' Certificate of Service for Notice of Deposition of Dr. James C. Schneider and Subpoena Duces Tecum

277	**2012-7-5**	**Report of June 28, 2012, Telephone Conference**
278	**2012-7-5**	**Order Concerning Kansas' Motion to Compel Disclosure of Stipulation and Related Settlement Agreements** (re 225,234,245)
279	**2012-7-5**	**Order Concerning Kansas' Motion to Strike Nebraska's Response in Support of Colorado's Motion to Dismiss** (re 258)
280	**2012-7-5**	**Notice of Telephone Conference to be held on July 10, 2012**
281	**2012-7-9**	**Appendix A (as amended) to Case Management Plan** (re 112,273)
282	**2012-7-9**	**Transcript of Telephone Conference of March 23, 2012**
283	2012-7-9	Nebraska's Response to Kansas' Motion for Reconsideration or Postponement of Trial (re 254)
284	**2012-7-13**	**Report of July 10, 2012, Telephone Conference**
285	**2012-7-13**	**Order on Kansas' Motion for Reconsideration of Ruling on Timeliness or, in the Alternative, for Postponement of Trial on Nebraska's New Counterclaim, and for Other Relief** (re 254,283)
286	**2012-7-13**	**Order on Kansas' Motion for Designation of Rebuttal Witnesses** (re 226,235,259)

287	2012-7-19	Direct Testimony of Willem A. Schreuder, Ph.D. on Behalf of Colorado Regarding Nebraska's Proposed Changes to the RRCA Accounting Procedures
288	2012-7-19	Direct Testimony of Dick Wolfe, P.E. on Behalf of Colorado Regarding Counterclaim: Nebraska's Proposed Changes to the RRCA Accounting Procedures
289	2012-7-19	Kansas' Certificate of Service for Pre-Filed Testimonies, Exhibits, and Exhibit List
290	2012-7-19	Pre-Filed Testimony of Kansas Witness Marvin Swanda
291	2012-7-19	Pre-Filed Testimony of Kansas Expert Michael Brzon
292	2012-7-19	Pre-Filed Testimony of Kansas Expert Dale E. Book, P.E.
293	2012-7-19	Pre-Filed Testimony of Kansas Witness David L. Pope
294	2012-7-19	Pre-Filed Testimony of Kansas Expert Aaron M. Thompson
295	2012-7-19	Pre-Filed Testimony of Kansas Witness Kenneth Nelson
296	2012-7-19	Pre-Filed Testimony of Kansas Expert Dr. Norman L. Klocke, P.E.
297	2012-7-19	Nebraska's Certificate of Service for Pre-Filed Exhibits with Index

298	2012-7-19	Direct Testimony of Dr. James Schneider, Ph.D., Re: Nebraska's First Amended Counterclaim (Proposed Changes to the RRCA Accounting Procedures)
299	2012-7-19	Direct Testimony of Brian Dunnigan; Director, Nebraska Department of Natural Resources Re: Nebraska's First Amended Counterclaim (Proposed Changes to the RRCA Accounting Procedures
300	2012-7-23	Letter of Ted Tietjen to Special Master [street address and cell number redacted]
301	2012-7-24	Certificate of Service: Additional Copies of Kansas Exhibits and Testimony, Including Amendments to Exhibits
302	2012-7-25	Kansas' Certificate of Service for Pre-Filed, or Summary of Expected, Testimony
303	2012-7-25	Pre-Filed Testimony of Kansas Witness Scott Ross
304	2012-7-25	Pre-Filed Testimony of Kansas Expert David W. Barfield, P.E.
305	2012-7-25	Pre-Filed Testimony of Kansas Expert Dr. M. Henry Robison
306	2012-7-25	Pre-Filed Testimony of Kansas Expert Dr. Joel Hamilton
307	2012-7-25	Pre-Filed Testimony of Kansas Expert Steven P. Larson
308	2012-7-25	Pre-Filed Testimony of Kansas Witness Brad Edgerton

309	2012-7-25	Summary of Expected Testimony of Kansas Witness Michael L. Clements
310	2012-7-25	Summary of Expected Testimony of Kansas Witness Brian P. Dunnigan, P.E.
311	2012-7-25	Nebraska's Notice of Filing of Direct Testimony and Motions in Limine
312	2012-7-25	Direct Testimony of Brian Dunnigan; Director, Nebraska Department of Natural Resources
313	2012-7-25	Direct Testimony of Dr. James C. Schneider, Ph.D., Re Nebraska's Future Compliance with the Republican River Compact
314	2012-7-25	Motion in Limine to Preclude Expert Rebuttal Report and Testimony of Dale E. Book and Brief in Support (re 292)
315	2012-7-25	Motion in Limine to Preclude Expert Report and Testimony of Dale Book (Book 1) and Brief in Support (re 292)
316	2012-7-25	Motion in Limine to Preclude Expert Report of Dale Book Entitled "Analysis Of Measures That Would Have Been Required For Nebraska To Achieve Water-Short Year Compliance With Republican River Company in 2006" (Book 2) and Testimony and Brief in Support (re 292)

317	2012-7-25	Motion in Limine to Preclude Expert Report of Dale E. Book Entitled "Requirements For Nebraska's Compliance With The Republican River Compact" (Book 3) and Testimony and Brief in Support (re 292)
318	2012-7-25	Motion in Limine to Preclude Expert Report and Testimony of Samuel P. Perkins and Steve P. Larson and Brief in Support (re 307)
319	2012-7-25	Motion in Limine to Preclude Expert Report and Testimony of David L. Pope and Brief in Support (re 293)
320	2012-7-25	Motion in Limine to Preclude Kansas' Expert Witness Disclosure and Testimony for Aaron M. Thompson and Brief in Support (re 294)
321	2012-7-25	Motion in Limine to Preclude Expert Reports and Testimony of Drs. Joel R. Hamilton and M. Henry Robison and Brief in Support (re 305,306)
322	2012-7-25	Motion in Limine to Preclude Expert Rebuttal Report and Testimony of Joel Hamilton and M. Henry Robison and Brief in Support (re 305,306)
323	2012-7-25	Motion in Limine to Preclude Expert Rebuttal Report and Testimony of David W. Barfield, P.E. (re 304)

324	2012-7-25	Motion in Limine to Preclude the Expert Report and Testimony of David W. Barfield and Brief in Support (re 304)
325	2012-7-25	Motion in Limine to Preclude Expert Report and Testimony of Norman L. Klocke and Brief in Support (re 296)
326	2012-7-25	Motion in Limine to Preclude Expert Rebuttal Report and Testimony of Norman L. Klocke, P.E., and Brief in Support (re 296)
327	2012-7-25	Direct Testimony of Jasper Fanning, Manager of the Upper Republican Natural Resources District
328	2012-7-25	Direct Testimony of Dr. David Sunding, Ph.D.
329	2012-7-25	Direct Testimony of Thomas E. Riley
330	2012-7-26	States' and United States' Joint Proposal for Agenda Item for July 31, 2012 Telephone Conference
331	2012-7-26	Colorado's List of Agenda Items for July 31, 2012 Status Conference
332	2012-7-26	Nebraska's Proposed Agenda Items for July 31, 2012 Telephonic Hearing
333	2012-7-27	Nebraska's Notice of Filing Revised Pre-Filed Exhibits with Index

334	2012-7-27	Kansas' Motion in Limine to Strike Portions of the Direct Testimony of James C. Schneider, Willem A. Schreuder and Dick Wolfe Re Nebraska's Proposed Changes to the RRCA Accounting Procedures and Appointment of a River Master (re 297,298)
335	2012-7-27	Nebraska's Motion in Limine to Preclude Portions of Kansas' Direct Testimony (Filed July 19, 2012) (re 290,291,292,293,294, 295,296)
336	2012-7-27	Nebraska's Motion in Limine to Preclude Portions of Kansas' Direct Testimony (Filed July 25, 2012) (re 303,304,305,306,307, 308,309,310)
337	**2012-7-30**	**Email of Special Master to Counsel re Letter of Ted Tietjen** (re 300)
338	2012-7-30	Kansas' Motion to Exclude a Portion of the Testimony of Dr. David Sunding (re 328)
339	2012-7-30	Joint Submittal of the States Re Items for July 31, 2012 Telephonic Hearing
340	2012-7-30	Nebraska's Notice of Filing Exhibits
341	**2012-7-31**	**Transcript of Telephone Conference of April 24, 2012**

342	**2012-7-31**	**Notice of Filing of Official Transcript of Telephone Conference with Counsel held on June 28, 2012**
343	**2012-7-31**	**Notice of Filing of Official Transcript of Telephone Conference with Counsel held on July 10, 2012**
344	**2012-8-1**	**Report of July 31, 2012, Telephone Conference**
345	2012-8-1	Nebraska's Brief in Opposition to Kansas' Motion to Exclude a Portion of the Testimony of Dr. David Sunding (re 338)
346	2012-8-1	Nebraska's Statement of Participants (re 344)
347	2012-8-1	Nebraska's Brief in Opposition to Kansas' Motion in Limine to Strike Portions of Direct Testimony of James C. Schneider, Willem A. Schreuder and Dick Wolfe Regarding Nebraska's Proposed Changes to the RRCA Accounting Procedures and Appointment of a River Master (re 334)
348	2012-8-1	Nebraska's Notice of Order to Review Direct Testimony
349	2012-8-2	Kansas' Notice of Recommendation of Order in Which to Read Pre-filed Testimony Filed by Kansas to Date
350	2012-8-6	Colorado's Pretrial Brief
351	2012-8-6	Nebraska's Pre-Trial Brief
352	2012-8-6	Kansas' List of Attorneys Attending Trial

353	2012-8-7	Expert Testimony of Steven P. Larson Re Initial Response to Nebraska's New Proposal for Changes to the Accounting Procedures
354	2012-8-7	Colorado's Statement of Participants
355	2012-8-8	Joint Filing of the States Re Proposed Schedule of Testimony
356	2012-8-8	Nebraska's Motion to Strike Expert Testimony of Steven P. Larson (re 353)
357	2012-8-8	Kansas' Opposition to Nebraska's Motion to Strike Expert Testimony of Steven P. Larson (re 353,356)
358	**2012-8-8**	**Notice of Filing of Official Transcript of Telephone Conference with Counsel held on July 31, 2012**
359	**2012-8-9**	**Order on Requests Pertaining to Use of Electronic Equipment in Courthouse** (re 352,354)
360	**2012-8-10**	**Email of Joshua D. Dunlap to Counsel Re Designation of Cell Phone/Laptop in Courtroom** (re 359)

361	2012-8-10	Colorado's Response to Kansas' Motion in Limine to Strike Portions of the Direct Testimony of Willem A. Schreuder and Dick Wolfe Re Nebraska's Proposed Changes to RRCA Accounting Procedures and Appointment of a River Master (re 334,347)
362	2012-8-10	Nebraska's Designation Re Courtroom Equipment (re 359,360)
363	2012-8-10	Kansas' Personnel Designations Re Courtroom Equipment (re 359,360)
364	2012-8-10	Kansas' Response in Opposition to Motion in Limine to Preclude Expert Report and Testimony of David L. Pope (re 319)
365	2012-8-10	Kansas' Response in Opposition to Motion in Limine to Preclude Kansas' Expert Witness Disclosure and Testimony for Aaron M. Thompson (re 320)
366	**2012-8-10**	**Order on Nebraska's August 8, 2012, Motion to Strike Expert Testimony of Steven P. Larson** (re 353,356,357)
367	**2012-9-6**	**Case Management Order No. 6**
368	**2012-9-7**	**Transcript of Proceedings – Volume I – Pages 1-251**
369	**2012-9-7**	**Transcript of Proceedings – Volume II – Pages 252-495**
370	**2012-9-7**	**Transcript of Proceedings – Volume III – Pages 496-690**

371	**2012-9-7**	**Transcript of Proceedings – Volume IV – Pages 691-912**
372	**2012-9-7**	**Transcript of Proceedings – Volume V – Pages 913-1044**
373	**2012-9-7**	**Transcript of Proceedings – Volume VI – Pages 1045-1293**
374	**2012-9-7**	**Transcript of Proceedings – Volume VII – Pages 1294-1481**
375	**2012-9-7**	**Transcript of Telephone Conference of May 16, 2012**
376	**2012-9-11**	**Transcript of Proceedings – Volume VIII – Pages 1482-1695**
377	**2012-9-13**	**Transcript of Telephone Conference of June 7, 2012**
378	**2012-9-13**	**Transcript of Proceedings – Volume IX – Pages 1696-1907**
379	2012-9-14	Motion of Kansas and Colorado for Extension of Time
380	2012-9-17	Response in Opposition to Motion of Kansas and Colorado for Extension of Time (re 379)
381	**2012-9-18**	**Order Granting In Part and Denying In Part the Motion of Kansas and Colorado for Extension of Time** (re 379,380)
382	2012-9-24	Kansas' Post-Trial Brief
383	2012-9-24	Nebraska's Post-Trial Brief
384	2012-9-24	Colorado's Post-Trial Brief
385	2012-9-25	Kansas' Post-Trial Brief (Corrected)
386	2012-9-25	Kansas' Post-Trial Brief Errata Sheet

387	2012-9-25	Kansas' Certificate of Service for Post-Trial Brief (Corrected) and Errata Sheet
388	2012-10-2	Substitution of Counsel for State of Colorado
389	**2012-10-2**	**Appendix A (as amended) to Case Management Plan** (re 112,388)
390	2012-10-15	Kansas' Post-Trial Reply Brief (re 383,384)
391	2012-10-15	Nebraska's Responsive Post-Trial Brief (re 385)
392	2012-10-15	Colorado's Reply to Post-Trial Briefs of Kansas and Nebraska (re 367,383,385)
393	2012-10-15	Letter from Ted Tietjen to Special Master [street address and cell phone number redacted]
394	**2012-10-22**	**Email of Special Master to Counsel re Letter of Ted Tietjen** (re 393)
395	2012-10-23	Email of Kevin Spelts to Special Master
396	**2012-10-25**	**Email of Special Master to Counsel re Email of Kevin Spelts** (re 395)
397	2012-10-26	Email from Kevin Spelts to Special Master (re 395)
398	2012-11-9	Email from Kevin Spelts to Special Master (re 395,397)
399	**2012-11-14**	**Email of Special Master to Counsel re Emails of Kevin Spelts** (re 397,398)

400	2012-11-14	Nebraska's Unopposed Motion to Clarify the Record and Admit Exhibits
401	**2012-11-16**	**Order Granting Nebraska's Unopposed Motion to Clarify the Record and Admit Exhibits** (re 400)
402	**2012-11-16**	**Final Exhibit List** (re 401)
403	2012-11-20	Kansas' Unopposed Motion to Remove and Destroy Exhibit N9237
404	2012-11-20	Kansas' Unopposed Motion to File Corrected and Other Exhibits
405	2012-11-26	Email from Kevin Spelts to Special Master
406	2012-11-29	Email of Special Master to Counsel re Email of Kevin Spelts (re 405)
407	**2012-11-30**	**Order Granting Kansas' Unopposed Motion to File Corrected and Other Exhibits** (re 404)
408	**2012-11-30**	**Order Granting Kansas' Unopposed Motion to Remove and Destroy Exhibit N9237** (re 403)
409	**2012-12-5**	**Case Management Order No. 7**
410	2012-12-6	Joint Response of Nebraska and Colorado on Request to Take Judicial Notice
411	**2012-12-13**	**Transcript of Telephone Conference of June 28, 2012**
412	**2012-12-13**	**Transcript of Telephone Conference of July 10, 2012**

413	**2012-12-13**	**Transcript of Telephone Conference of July 31, 2012**
414	2013-1-2	Kansas' Letter to Special Master
415	**2013-1-9**	**Case Management Order No. 8**
416	**2013-1-9**	**Draft Report of the Special Master with Appendices F and G**
417	**2013-1-11**	**Notice of Hearing Regarding Draft Report to be Held on January 24, 2013**
418	2013-1-17	Colorado's Notice of Change of Address and Telephone Number
419	**2013-1-22**	**Appendix A (as amended) to Case Management Plan** (re 112,418)
420	2013-1-22	Nebraska's Memorandum on the Draft Report (re 415,416)
421	2013-1-22	Nebraska's Proposed Revisions to Draft Report of the Special Master (re 415,416,420)
422	2013-1-22	Nebraska's Proposal for Further Proceedings on Resolution of Accounting Procedures Dispute (re 415)
423	2013-1-22	Nebraska's Update on Compliance Efforts (re 415)
424	2013-1-22	Kansas' Comments on the Draft Report (re 415,416)
425	2013-1-22	Kansas' Proposed Revisions to Draft Report of the Special Master (re 415,416,424)
426	2013-1-22	Kansas' Proposal Re Further Proceedings on Accounting Procedures Change (re 415)

427	2013-1-22	Kansas' Brief Re Nebraska's Recent Compliance Efforts (re 415)
428	2013-1-22	Colorado's Memorandum in Response to Draft Report of the Special Master (re 415,416)
429	2013-1-22	Colorado's Proposed Revisions to Draft Report of the Special Master (re 415,416,428)
430	2013-1-22	Colorado's Proposal for Scheduling Further Proceedings (re 415)
431	**2013-1-25**	**Case Management Order No. 9**
432	**2013-2-1**	**Transcript of Proceedings of January 24, 2013**
433	2013-2-5	Kansas' Request for Approval of Discovery
434	2013-2-7	Nebraska's Request for Hearing and Leave to File Written Objections (re 433)
435	2013-2-7	Kansas' Supplemental Filing Re Request for Approval of Discovery
436	2013-2-8	Colorado's Request for Conference and Leave to File Brief (re 433)
437	2013-2-8	Appendix A to Colorado's Request for Conference and Leave to File Brief
438	2013-2-11	Notice of Telephone Conference to be Held on February 14, 2013
439	2013-2-13	Colorado's Brief Opposing Kansas' Discovery Requests (re 433,435)

440	2013-2-13	Nebraska's Additional Comments to Kansas' Discovery Requests (re 433,435)
441	2013-2-13	Kansas' Response to Requests for Hearing (re 434,436)
442	**2013-2-18**	**Order on Kansas' Request for Approval of Discovery** (re 433, 434, 435, 436, 439, 440, 441)
443	2013-2-19	Kansas' Notice of Status Change of Burke W. Griggs
444	2013-3-14	Certificate of Service for Nebraska's Response to Kansas' Post-Trial Interrogatories
445	2013-3-25	Kansas' Supplemental Request for Approval of Discovery
446	2013-3-26	Corrected Certificate of Service for Kansas' Supplemental Request for Approval of Discovery
447	2013-3-29	Nebraska's Response to Kansas' Supplemental Request for Discovery
448	2013-3-29	Declaration of James C. Schneider
449	**2013-4-5**	**Order on Kansas' Supplemental Request for Approval of Discovery** (re 445)
450	**2013-4-9**	**Transcript of Telephone Conference of February 14, 2013**
451	**2013-4-9**	**Transcript of Telephone Conference of April 1, 2013**
452	2013-4-9	Nebraska's Certificate of Service for Response to Kansas' Supplemental Request for Production

453	**2013-4-15**	**Appendix A (as amended) to Case Management Plan** (re 112)
454	2013-5-15	Kansas' Notice of Service of Expert Report
455	2013-5-15	Kansas' Expert Report on Nebraska's 5-Run Proposal by Steven P. Larson
456	2013-5-17	Joint Motion to Set Hearing Date
457	2013-5-17	Colorado's Motion in Limine and Request for Conference
458	**2013-5-21**	**Notice of Telephone Conference to be Held on May 23, 2013**
459	2013-5-21	Nebraska's Motion for Order Requiring Kansas to Clarify Scope of its Expert Submittal
460	2013-5-21	Kansas' Opposition to Colorado's Motion in Limine
461	2013-5-23	Nebraska's Lodging of Transcripts to Support Colorado's Motion in Limine
462	2013-5-27	Motion to Supplement Distribution List for State of Kansas
463	**2013-5-28**	**Appendix A (as amended) to Case Management Plan** (re 112, 462)
464	2013-5-28	Kansas' Report on Development of the Integrated Solution Alternative to Nebraska's 5-Run Proposal

465	2013-5-29	Certificate of Service for Nebraska's Notice of Deposition of Steven P. Larson and Subpoena Duces Tecum
466	2013-5-29	Certificate of Service for Nebraska's Notice of Deposition of Samuel L. Perkins and Subpoena Duces Tecum
467	2013-5-30	Certificate of Service for Colorado's Notice of Deposition of Steve Larson and Subpoena Duces Tecum
468	2013-5-30	Certificate of Service for Colorado's Notice of Deposition of Samuel P. Perkins and Subpoena Duces Tecum
469	**2013-6-5**	**Transcript of Telephone Conference of May 23, 2013**
470	2013-6-11	Certificate of Service for Kansas' Objections to Colorado's Subpoena Duces Tecum for Steven P. Larson
471	2013-6-11	Certificate of Service for Kansas' Objections to Nebraska's Subpoena Duces Tecum for Steven P. Larson
472	2013-6-12	Certificate of Service for Kansas' Objections to Colorado's Subpoena Duces Tecum for Samuel P. Perkins
473	2013-6-12	Certificate of Service for Kansas' Objections to Nebraska's Subpoena Duces Tecum for Samuel P. Perkins

474	2013-6-20	Certificate of Service for Nebraska's Notice of Deposition of Samuel P. Perkins and Subpoena Duces Tecum
475	**2013-6-25**	**Case Management Order No. 10**
476	**2013-6-27**	**Corrected Transcript of Telephone Conference of May 23, 2013**
477	2013-7-9	Colorado's Expert Report in Response to Kansas' Expert Report Under Case Management Order No. 9 (re 431, 475)
478	2013-7-9	Colorado's Certificate of Service for Colorado's Expert Report in Response to Kansas' Expert Report Under Case Management Order No. 9
479	2013-7-9	Nebraska's Responsive Expert Report on Kansas' Expert Report on Nebraska's 5-Run Proposal (re 431, 475)
480	2013-7-9	Nebraska's Notice of Service of Expert Report and Certificate of Service
481	2013-7-23	Kansas' Motion for Leave to Depose Dr. Willem A. Schreuder
482	2013-7-25	United States' Statement of Participation
483	**2013-7-30**	**Report of July 29, 2013, Telephone Conference**
484	**2013-8-2**	**Transcript of Telephone Conference of July 29, 2013**
485	2013-8-2	Certificate of Service for Kansas' Privilege Log Transmittal Notice

486	2013-8-6	Colorado's Statement of Participants
487	2013-8-6	Kansas' Motion to Allow David L. Pope to Testify
488	**2013-8-7**	**Order on Kansas' Motion to Allow David L. Pope to Testify** (re 487)
489	2013-8-9	Dr. Willem A. Schreuder's Responses to Kansas' Supplemental Questions
490	2013-8-9	List of Kansas Participants Attending Trial
491	2013-8-9	Nebraska's Statement of Participants
492	2013-8-9	Nebraska's Pre-Hearing Brief
493	2013-8-9	Nebraska's Notice of Exhibits
494	2013-8-9	Kansas' Notice of Additional Trial Exhibits
495	2013-8-12	Pre-Filed Testimony of Kansas Witness David L. Pope
496	2013-8-13	Nebraska's Motion to Seal Testimony of David L. Pope (withdrawn on 8/15/13) (re 495)
497	2013-8-20	Nebraska's Notice of Filing Declaration of Thomas E. Riley and Nebraska Exhibits N4501, N4502, N4503, N4504, N4505, and N4506
498	2013-8-20	Declaration of Thomas E. Riley with Nebraska Exhibits N4501, N4502, N4503, N4504, N4505, and N4506 (re 497)
499	**2013-8-23**	**Transcript of Proceedings of August 15, 2013**

500	2013-8-30	Kansas' Post Trial Brief
501	2013-8-30	Nebraska's Post Trial Brief
502	2013-8-30	Colorado's Closing Brief
503	**2013-10-3**	**Order Regarding Review of Technical Changes to the RRCA Accounting Procedures to Implement the Five-Run Solution**
504	**2013-10-3**	**Final Exhibit List**
505	2013-10-7	Email on behalf of Nebraska and Colorado in Response to Order Regarding Review of Technical Changes to the RRCA Accounting Procedures to Implement the 5-Run Solution
506	2013-10-10	Kansas' Submission in Response to Order Regarding Review of Technical Changes to the RRCA Accounting Procedures to Implement the 5-Run Solution
507	**2013-10-11**	**Notice of Telephone Conference to be Held on October 18, 2013**

APPENDIX E

No. 126, Original

In The
Supreme Court of the United States

STATE OF KANSAS,

Plaintiff,

v.

STATE OF NEBRASKA

and

STATE OF COLORADO,

Defendants.

BEFORE THE HONORABLE
VINCENT L. MCKUSICK SPECIAL MASTER

FINAL SETTLEMENT STIPULATION
VOLUME 1 OF 5

December 15, 2002

---

[i] TABLE OF CONTENTS

VOLUME 1 Page

FINAL SETTLEMENT STIPULATION 1

I. GENERAL 1

II. DEFINITIONS 3

III. EXISTING DEVELOPMENT 9

A. Moratorium on New Wells 9

B. Exceptions to Moratorium on New Wells 11

C. Surface Water Limitations 16

D. Reporting 16

IV. COMPACT ACCOUNTING 17

A. RRCA Accounting Procedures 17

B. Sub-Basin Accounting 17

C. RRCA Groundwater Modeling 17

D. Accounting Averaging 24

E. System Improvements 25

F. Imported Water Supply 25

G. Measurement, Data & Reporting 25

H. Augmentation Credit 25

V. GUIDE ROCK 25

A. Additional Water Administration 25

B. Water-Short Year Administration 27

VI. SOIL AND WATER CONSERVATION MEASURES 32

[ii] A. Accounting for Non-Federal Reservoirs 32

B. Study 32

VII. DISPUTE RESOLUTION 34

A. Initial Submission to the RRCA 34

B. General Dispute Resolution Provisions 37

C. Fast Track Dispute Resolution Schedule 39

D. Regular Dispute Resolution Schedule 40

VIII. NON-SEVERABILITY OF AGREEMENT 40

IX. ENTIRETY OF AGREEMENT 41

X. RETENTION OF JURISDICTION BY THE SPECIAL MASTER 41

A. Selection of Arbitrator 41

B. Information Sharing Requirements 41

STATE APPROVALS OF FINAL SETTLEMENT STIPULATION 42

APPENDICES TO FINAL SETTLEMENT STIPULATION*

A. Proposed Consent Judgment A1

B. Final Settlement Stipulation Implementation Schedule B1

---

* In order to consolidate the principal provisions of the Final Settlement Stipulation, Appendices K, L, and M appear in Volume 1.

C. RRCA Accounting Procedures C1

[iii] D. Maps – Upstream of Guide Rock, Nebraska and Moratorium Exception Areas D1

E.-J. See Volumes 2-5

K. Harlan County Lake Operation Consensus Plan K1

L. Implementation of Additional Water Administration L1

M. Alternative Water-Short Year Administration M1

VOLUME 2

E. Nebraska Laws, Rules and Regulations re: Prohibition on Well Construction E1-1

E1. Nebraska Laws E1-1

VOLUME 3

E2. Nebraska Department of Natural Resources, Title 256 – Regulations Governing the Administration of the Resources Development Fund E2-1

E3. Nebraska Natural Resource Districts, Rules and Regulations E3-1

F. Nebraska Calculation of Historic Consumptive Use F1

VOLUME 4

G. Kansas Laws, Rules and Regulations re: Prohibition on Well Construction G1

[iv] VOLUME 5

H. Colorado Laws, Rules and Regulations re: Prohibition on Well Construction H1-1

H1. Colorado Department of Natural Resources, Division of Water Resources, Rules of Procedure for All Adjudicatory Hearings H1-1

H2. Designated Ground Water, Colorado Revised Statutes H2-1

H3. State of Colorado, Ground Water Commission, Policy Memorandum 95-3 ..... H3-1

H4. Rules for Small Capacity Well Permits in Designated Ground Water Basins..... H4-1

H5. State of Colorado, Office of the State Engineer, Policy Memorandum 94-4 ..... H5-1

H6. State of Colorado, Ground Water Commission, Rules and Regulations for the Management and Control of Designated Ground Water H6-1

I. Confidentiality Agreement..... I1

J. RRCA Groundwater Model Materials J1-1

J1. Status of Agreement on RRCA Groundwater Model as of November 15, 2002 ..... J1-1

J2. RRCA Groundwater Model Domain J2-1

J3. Summary of Estimated Baseflow J3-1

[1] FINAL SETTLEMENT STIPULATION

The States of Kansas, Nebraska and Colorado, hereby enter into this Final Settlement Stipulation as of December 15, 2002:

I. General

A. The States agree to resolve the currently pending litigation in the United States Supreme Court regarding the Republican River Compact by means of this Stipulation and the Proposed Consent Judgment attached hereto as Appendix A.

B. The States agree to undertake the obligations set forth in this Stipulation. The States shall implement the obligations and agreements in this Stipulation in accordance with the schedule attached hereto as Appendix B.

C. Upon the Court's approval of this Stipulation and entry of the Proposed Consent Judgment, the States agree that all claims against each other relating to the use of the waters of the Basin pursuant to the Compact with respect to activities or conditions occurring before December 15, 2002, shall be waived, forever barred and dismissed with prejudice. These claims shall include all claims for Compact violations, damages, and all claims asserted or which could have been asserted in the pending proceeding, No. 126, Original.

D. With respect to activities or conditions occurring after December 15, 2002, the dismissal will not preclude a State from seeking

enforcement of the provisions of the Compact, this Stipulation and the Proposed Consent Judgment. Nor will the dismissal preclude any State in such future action from asserting any legal theories it raised in the present proceeding, or any other legal theories, [2] with respect to activities or conditions occurring after the date of such dismissal. The States agree that this Stipulation and the Proposed Consent Judgment are not intended to, nor could they, change the States' respective rights and obligations under the Compact. The States reserve their respective rights under the Compact to raise any issue of Compact interpretation and enforcement in the future.

E. Specific information-sharing requirements are set forth in the RRCA Accounting Procedures, attached hereto as Appendix C. The States will provide each other with the opportunity to inspect and copy their records pertaining to water use in the Basin, other than privileged materials, upon request. The States will cooperate in arranging verification as reasonably necessary.

F. The RRCA may modify the RRCA Accounting Procedures, or any portion thereof, in any manner consistent with the Compact and this Stipulation.

G. Headings in this Stipulation are provided for convenience only and shall not affect the substance of any provision.

H. This Stipulation supersedes the Settlement Principles signed by the States on April 30, 2002.

I. The provisions of Subsection IV.C. relating to the development of the RRCA Groundwater Model shall be in effect and enforceable between December 15, 2002 and July 1, 2003 or until the Court's approval or disapproval of this Stipulation, whichever is later.

J. Within six months of the final dismissal of this case, the RRCA shall revise its existing rules and regulations as necessary to make them consistent [3] with this Stipulation and the RRCA Accounting Procedures.

II. Definitions

Wherever used in this Stipulation the following terms are defined as:

Acre-foot: The quantity of water required to cover an acre to the depth of one foot, equivalent to forty-three thousand, five hundred sixty (43,560) cubic feet;

Actual Interest: A State will be deemed to have an actual interest in a dispute if resolution of the dispute could require action by the State, result in increasing or decreasing the amount of water available to a State, affect the State's ability to monitor or administer water use or water availability, or increase the State's financial obligations;

Addressed by the RRCA: A matter is deemed to be addressed by the RRCA when the RRCA has taken final action by vote on such request or failed to take action by vote on the request after a Reasonable Opportunity to investigate and act on the request;

Allocation(s): The water supply allocated to each State from the Computed Water Supply;

Annual: As defined in the RRCA Accounting Procedures Section II;

Basin: Republican River Basin as defined in Article II of the Republican River Compact;

Beneficial Consumptive Use: That use by which the Water Supply of the Basin is consumed through the activities of man, and shall include [4] water consumed by evaporation from any reservoir, canal, ditch, or irrigated area;

Compact: The Republican River Compact, Act of February 22, 1943, 1943 Kan. Sess. Laws 612, codified at Kan. Stat. Ann. § 82a-518 (1997); Act of February 24, 1943, 1943 Neb. Laws 377, codified at 2A Neb. Rev. Stat. App. § 1-106 (1995), Act of March 15, 1943, 1943 Colo. Sess. Laws 362, codified at Colo. Rev. Stat. §§ 37-67-101 and 37-67-102 (2001); Republican River Compact, Act of May 26, 1943, ch. 104, 57 Stat. 86;

Computed Beneficial Consumptive Use: The stream flow depletion resulting from the activities of man as listed in the definition of Computed Beneficial Consumptive Use in the RRCA Accounting Procedures Section II;

Computed Water Supply: As defined in the RRCA Accounting Procedures Section II;

Conservation Committee: The conservation measures study committee established in Subsection VI.B.1;

Court: The United States Supreme Court;

Designated Drainage Basins: The drainage basins of the specific tributaries and Main Stem of the Republican River as described in Article III of the Compact;

Dewatering Well: A Well constructed solely for the purpose of lowering the groundwater elevation;

Federal Reservoirs: Bonny Reservoir, Swanson Lake, Enders Reservoir, Hugh Butler Lake, Harry Strunk Lake, Keith Sebelius Lake, Harlan County Lake, Lovewell Reservoir;

[5] **Flood Flows:** The amount of water deducted from the Virgin Water Supply as part of the computation of the Computed Water Supply due to a flood event as determined by the methodology described in the RRCA Accounting Procedures, Subsection III.B.1.;

Guide Rock: A point at the Superior-Courtland Diversion Dam on the Republican River near Guide Rock, Nebraska; the Superior-Courtland Diversion Dam gage plus any flows through the sluice gates of the dam, specifically excluding any diversions to the Superior and Courtland Canals, shall be the measure of flows at Guide Rock;

Historic Consumptive Use: That amount of water that has been consumed under appropriate and reasonably efficient practices to accomplish without waste the purposes for which the appropriation or other legally permitted use was lawfully made;

Imported Water Supply: The water supply imported by a State from outside the Basin resulting from the activities of man;

Imported Water Supply Credit: The accretions to stream flow due to water imports from outside of the Basin as computed by the RRCA Groundwater Model. The Imported Water Supply Credit of a State shall not be included in the Virgin Water Supply and shall be counted as a credit/offset against the Computed Beneficial Consumptive Use of that State's Allocation, except as provided in Subsection V.B.2. of this Stipulation and Subsections III.I. – J. of the RRCA Accounting Procedures;

Main Stem: The Designated Drainage Basin identified in Article III of the Compact as the [6] North Fork of the Republican River in Nebraska and the main stem of the Republican River between the junction of the North Fork and the Arikaree River and the lowest crossing of the river at the Nebraska-Kansas state line and the small tributaries thereof, and also including the drainage basin Blackwood Creek;

Main Stem Allocation: The portion of the Computed Water Supply derived from the Main Stem and the Unallocated Supply derived from the Sub-basins as shared by Kansas and Nebraska;

Modeling Committee: The joint groundwater modeling committee established in Subsection IV.C.;

Moratorium: The prohibition and limitations on construction of new Wells in the geographic area described in Section III;

Non-Federal Reservoirs: Reservoirs other than Federal Reservoirs that have a storage capacity of 15 Acre-feet or greater at the principal spillway elevation;

Northwest Kansas: Those portions of the Subbasins within Kansas;

Proposed Consent Judgment: The document attached hereto as Appendix A;

Reasonable Opportunity: The RRCA will be deemed to have had a reasonable opportunity to investigate and act on a regular request when, at a minimum, the issue has been discussed at the next regularly scheduled annual meeting. If the RRCA agrees that an issue requires additional investigation, the RRCA may specify a period of time that constitutes a reasonable opportunity for [7] completion of such investigation and final action on the particular issue. The RRCA will be deemed to have had a reasonable opportunity to investigate and act on a "fast-track" request when the issue has been discussed at a meeting of the RRCA no later than 30 days after the "fast-track" issue has been raised. If the RRCA agrees that a "fast track" issue requires additional investigation, the RRCA may specify a period of time that constitutes a reasonable opportunity

for completion of such investigation and final action on the particular issue;

Replacement Well: A Well that replaces an existing Well that a) will not be used after construction of the new Well and b) will be abandoned within one year after such construction or is used in a manner that is excepted from the Moratorium described in Subsections III.B.1.c.-f. of this Stipulation;

RRCA: The Republican River Compact Administration, the administrative body composed of the State officials identified in Article IX of the Compact;

RRCA Accounting Procedures: The document titled "The Republican River Compact Administration Accounting Procedures and Reporting Requirements" and all attachments thereto, attached hereto as Appendix C;

RRCA Groundwater Model: The groundwater model developed under the provisions of Subsection IV.C. of this Stipulation;

State: Any of the States of Colorado, Kansas and Nebraska;

[8] **States:** The States of Colorado, Kansas and Nebraska;

Stipulation: This Final Settlement Stipulation to be filed in *Kansas v. Nebraska and Colorado*, No. 126, Original, including all Appendices attached hereto;

Sub-basin: Any of the Designated Drainage Basins, except for the Main Stem, identified in Article III of the Compact;

Submitted to the RRCA: A matter is deemed to have been submitted to the RRCA when a written statement requesting action or decision by the RRCA has been delivered to the other RRCA members by a widely accepted means of communication and receipt has been confirmed;

Test hole: A hole designed solely for the purposes of obtaining information on hydrologic and/or geologic conditions;

Trenton Dam: The dam located at 40 degrees, 10 minutes, 10 seconds latitude and 101 degrees, 3 minutes, 35 seconds longitude, approximately two and one-half miles west of the town of Trenton, Nebraska;

Unallocated Supply: The "water supplies of upstream basins otherwise unallocated" as set forth in Article IV of the Compact;

Upstream of Guide Rock, Nebraska: Those areas within the Basin lying west of a line proceeding north from the Nebraska-Kansas state line and following the western edge of Webster County, Township 1, Range 9, Sections 34, 27, 22, 15, 10 and 3 through Webster County, Township 2, Range 9, Sections 34, 27 and 22; then proceeding west along the southern edge of Webster [9] County, Township 2, Range 9, Sections 16, 17 and 18; then proceeding north following the western edge of Webster County, Township 2, Range 9, Sections 18, 7 and 6, through Webster County,

Township 3, Range 9, Sections 31, 30, 19, 18, 7 and 6 to its intersection with the northern boundary of Webster County. Upstream of Guide Rock, Nebraska shall not include that area in Kansas east of the 99° meridian and south of the Kansas-Nebraska state line. Attached to this Stipulation in Appendix D is a map that shows the areas upstream of Guide Rock, Nebraska. In the event of any conflict between this definition and Appendix D, this definition will control;

Virgin Water Supply: The Water Supply within the Basin undepleted by the activities of man.

Water Supply of the Basin or **Water Supply within the Basin:** The stream flows within the Basin, excluding Imported Water Supply;

Well: Any structure, device or excavation for the purpose or with the effect of obtaining groundwater for beneficial use from an aquifer, including wells, water wells, or groundwater wells as further defined and used in each State's laws, rules, and regulations.

III. Existing Development

A. Moratorium on New Wells

1. Except as provided below, the States hereby adopt a prohibition on the construction of all new Wells in the Basin upstream of Guide Rock, Nebraska (hereinafter "Moratorium"). The Moratorium may be modified, in whole or in part, by the RRCA if it determines that new information demonstrates

that additional [10] groundwater development in all or any part of the Basin that is subject to the Moratorium would not cause any State to consume more than its Allocations from the available Virgin Water Supply as calculated pursuant to Section IV of this Stipulation. New information shall mean results from the RRCA Groundwater Model or any other appropriate information. Attached hereto in Appendix E, are such laws, rules and regulations in Nebraska concerning the prohibition on construction of new Wells in the Basin.

2. Nothing in this Stipulation, and specifically this Subsection III.A., shall extend the Moratorium or create an additional Moratorium in any of the States in any other river basin or in any other groundwater supply located outside of the Basin.

3. Notwithstanding the provision in Subsection III.A.1. of this Stipulation permitting the RRCA to modify the prohibition on construction of new Wells, the States will not increase the level of development of Wells as of July 1, 2002 in the following Designated Drainage Basins, subject to the exceptions set forth in Subsection III.B.1-2.:

North Fork of the Republican River
in Colorado

Arikaree River
South Fork of the Republican River
Buffalo Creek
Rock Creek
That portion of the North Fork and Main
Stem of the Republican River in Nebraska that lies upstream of Trenton Dam.

[11] Any of the States may seek to amend this provision of this Stipulation by making application to the Court upon any change in conditions making modification of this Subsection III.A.3. necessary or appropriate.

B. Exceptions to Moratorium on New Wells

1. The Moratorium shall not apply to the following:

a. Any and all Wells in the Basin located within the current boundaries of the following Natural Resource Districts in Nebraska:

i. The Tri-Basin Natural Resource District;

ii. The Twin Platte Natural Resource District; and

iii. The Little Blue Natural Resource District.

Attached to this Stipulation in Appendix D is a map that

shows the areas described in this Subsection III.B.1.a. In the event of any conflict between this Subsection and Appendix D, this Subsection will control;

b. Any and all Wells in the Basin in Nebraska located in the following described areas:

i. Lincoln County, Township 9, Range 27, Sections 5-7;

ii. Lincoln County, Township 9, Range 28, Sections 1-23, 28-30;

[12] iii. Lincoln County, Township 9, Range 29, Sections 1-18, 21-26;

iv. Lincoln County, Township 9, Range 30, Sections 1-6, 8-13;

v. Lincoln County, Township 9, Range 31, Sections 1-2;

vi. Lincoln County, Township 10, Range 27, Sections 19-24, 27-33;

vii. Lincoln County, Township 10, Range 28, Sections 1-36;

viii. Lincoln County, Township 10, Range 29, Sections 1-36;

ix. Lincoln County, Township 10, Range 30, Sections 1-36;

x. Lincoln County, Township 10, Range 31, Sections 1-18, 20-27 and 34-36;

xi. Lincoln County, Township 10, Range 32, Sections 1-4 and 10-13;

xii. Lincoln County, Township 11, Range 28, Sections 28-35;

xiii. Lincoln County, Township 11, Range 29, Sections 19-36;

xiv. Lincoln County, Township 11, Range 30, Sections 19-36;

xv. Lincoln County, Township 11, Range 31, Sections 19-36;

xvi. Lincoln County, Township 11, Range 32, Sections 19-36;

[13] xvii. Lincoln County, Township 11, Range 33, Sections 19-30, 32-36;

xviii. Lincoln County, Township 11, Range 34, Sections 21-27;

xix. Frontier County, Township 6, Range 24, Sections 1-36;

xx. Frontier County, Township 7, Range 24, Sections 1-36; and,

xxi. Frontier County, Township 8, Range 24, Sections 19-21 and 27-36.

Attached to this Stipulation in Appendix D is a map that shows the areas described in this Subsection III.B.1.b. In the event of any conflict between this Subsection and Appendix D, this Subsection will control.

c. Test holes;

d. Dewatering Wells with an intended use of one year or less;

e. Wells designed and constructed to pump fifty gallons per minute or less, provided that no two or more Wells that pump fifty gallons per minute or less may be connected or otherwise combined to serve a single project such that the collective pumping would exceed fifty gallons per minute;

f. Wells designed and constructed to pump 15 Acre-feet per year or less, provided that no two or more Wells that pump 15 Acre-feet per year or less may be connected or [14] otherwise combined to serve a single project such that the collective pumping would exceed 15 Acre-feet per year;

g. Replacement Wells, subject to all limitations or permit conditions on the existing Well, or in the absence of any limitation or permit condition only if the Beneficial Consumptive Use of water from the new Well is no greater than the Historic Consumptive Use of water from the Well it is to replace. Nebraska will calculate Historic Consumptive Use in the manner proposed in Appendix F. Nebraska shall not change its proposed method of calculating Historic Consumptive Use before providing notice to the RRCA;

h. Wells necessary to alleviate an emergency situation involving the provision of water for human consumption or public health and safety;

i. Wells to which a right or permit is transferred in accordance with state law, provided however, that the new Well:

(i) consumes no more water than the Historic Consumptive Use of water under the right or permit that is being transferred; and

(ii) is not a transfer of a right or permit that would cause an

increased stream depletion upstream of Trenton Dam.

Nebraska will calculate Historic Consumptive Use in the manner proposed in Appendix F. Nebraska shall not change [15] its proposed method of calculating Historic Consumptive Use before providing notice to the RRCA;

j. Wells for expansion of municipal and industrial uses. Any new Wells for these purposes shall be counted against the State's Allocation and, to the extent a State is consuming its full Allocation, other uses shall be reduced to stay within the State's Allocation; and

k. Wells acquired or constructed by a State for the sole purpose of offsetting stream depletions in order to comply with its Compact Allocations. Provided that, such Wells shall not cause any new net depletion to stream flow either annually or long-term. The determination of net depletions from these Wells will be computed by the RRCA Groundwater Model and included in the State's Computed Beneficial Consumptive Use. Augmentation plans and related accounting procedures submitted under this Subsection III.B.1.k.

shall be approved by the RRCA prior to implementation.

2. The Moratorium shall not apply to nor create any additional limitations on new Wells in Northwest Kansas and Colorado in the Basin other than those imposed by state laws, rules and regulations in existence as of April 30, 2002. Provided however, that the Historic Consumptive Use of a Well in Colorado or Northwest Kansas that is or would have been accounted for in Compact accounting as a stream depletion reaching the Republican River downstream of Trenton Dam may not [16] be transferred to a Well that would cause a depletion reaching the Republican River upstream of Trenton Dam. Further, neither Colorado nor Kansas shall change their laws, rules or regulations in existence as of April 30, 2002, to the extent that such changes would result in restrictions less stringent than those set forth in Subsection III.B.1. above. Attached hereto in Appendices G and H, respectively, are such laws, rules and regulations in Northwest Kansas and Colorado in existence as of April 30, 2002.

C. Surface Water Limitations

Each of the States has closed or substantially limited its portion of the Basin above Hardy, Nebraska to new surface water rights or permits. Each State agrees to notify each Official Member of the RRCA and the U. S. Bureau of Reclamation at least 60 days prior to a new surface water right or permit being granted or prior to adopting changes to its current restrictions related to granting new surface water rights or permits in the Basin above Hardy, Nebraska and provide the RRCA an opportunity for discussion. Each State, however, reserves the right to allow new surface water rights or permits to use additional surface water if such use can be made within the State's Compact Allocation.

D. Reporting

Beginning on April 15, 2003, or such other date as may be agreed to by the RRCA and on the same date each year thereafter, each State will provide the other States with an annual report for the previous year of all Well construction in the State within the Basin Upstream of Guide Rock, [17] Nebraska and all denials of Well permits or other requests for Well construction. The report shall include such information as required by the RRCA Accounting Procedures, Section V.

IV. Compact Accounting

A. The States will determine Virgin Water Supply, Computed Water Supply, Allocations, Imported Water Supply Credit, augmentation credit and Computed Beneficial Consumptive Use based on a methodology set forth in the RRCA Accounting Procedures, attached hereto as Appendix C.

B. Water derived from Sub-basins in excess of a State's specific Sub-basin Allocations is available for use by each of the States to the extent that:

1. such water is physically available;

2. use of such water does not impair the ability of another State to use its Sub-basin Allocation within the same Sub-basin;

3. use of such water does not cause the State using such water to exceed its total statewide Allocation; and

4. if Water-Short Year Administration is in effect, such use is consistent with the requirements of Subsection V.B.

C. Determination of stream flow depletions caused by Well pumping and determination of Imported Water Supply Credit will be accomplished by the RRCA Groundwater Model as used in the RRCA Accounting Procedures.

1. Stream flow depletions caused by Well pumping for Beneficial Consumptive Use will be included in the determination of Virgin [18] Water Supply, Computed Water Supply, Allocations and Computed Beneficial Consumptive Use in accordance with the formulas in the RRCA Accounting Procedures provided that the RRCA may agree to exclude from such accounting minimal stream flow depletions. Stream flow depletions caused by Well pumping for Beneficial Consumptive Use will be counted as Virgin Water Supply and Computed Beneficial Consumptive Use at the time and to the extent the stream flow depletion occurs and will be charged to the State where the Beneficial Consumptive Use occurs.

2. The States agree to devote the necessary time and resources, subject to legislative appropriations, to complete the RRCA Groundwater Model in consultation with the appropriate United States agencies.

3. The States have created a Modeling Committee, comprised of members designated by the States and the United States. Each State may appoint at least one member but no more than three to the Modeling Committee. The United States may designate no more than two representatives to the Modeling Committee. The Modeling

Committee shall develop a groundwater model acceptable to the States to accomplish the purposes set forth in this Subsection IV.C. The meetings and other work of the Modeling Committee shall be subject to the Confidentiality Agreement dated October 19, 2001, signed by the States and the United States, attached hereto as Appendix I.

[19] Nothing in this Stipulation shall be construed as limiting the attendance and observation by non-member representatives of the participants at any meeting of the Modeling Committee or participation by non-members in the independent work of the States and United States representatives.

4. The States and the United States have agreed to freely and immediately share all available data, information, expert knowledge, and other information necessary for the Modeling Committee to complete the modeling work as requested by any member of the Modeling Committee. Data and information is considered to be "available" if it is not otherwise privileged and is (1) used by a State in the modeling process, or (2) is in the possession or control of a State, including its political subdivisions, in the form that the information exists at the time of

the request. Data and information "necessary to complete the modeling work" also includes any available information to verify any other data and information. Shared information shall be subject to the Confidentiality Agreement dated October 19, 2001, signed by the States and the United States.

5. If at any time, the members of the Modeling Committee cannot reach agreement on necessary modifications to the RRCA Groundwater Model or any other issues, the Modeling Committee shall report the nature of the dispute to the States promptly and the States shall resolve the dispute as soon as possible.

6. The structure of the RRCA Groundwater Model, together with agreed upon architecture, [20] parameters, procedures and calibration targets as of November 15, 2002, are described in the memorandum attached hereto as Appendix J.

7. The Modeling Committee shall submit the RRCA Groundwater Model to the States in final form with sufficient time for the States to review and agree to the RRCA Groundwater Model by July 1, 2003.

8. Upon agreement by the States to the RRCA Groundwater Model, the States,

through the RRCA, shall adopt the RRCA Groundwater Model for purposes of Compact accounting. Following final dismissal of this case, the RRCA may modify the RRCA Groundwater Model or the associated methodologies after discussion with the U.S. Geological Survey.

9. Between December 15, 2002 and July 1, 2003, if the States are unable to agree upon the final RRCA Groundwater Model or if any disputes arise in the Modeling Committee that the States cannot resolve, the dispute will be submitted to binding expert arbitration for resolution as set forth in this Subsection IV.C.9. No State may invoke binding arbitration unless it has first raised the issue it seeks to have arbitrated in the Modeling Committee and to the States as provided for in Subsection IV.C.5. For purposes of this Subsection IV.C.9., written communications required by this Subsection IV.C.9. shall be provided by both U.S. Mail and by facsimile to both counsel of record and the Official Member of the RRCA for each State and to counsel of record for the United States.

[21] a. Initiation: Any State may invoke binding arbitration by providing written notice to the other States on or before July 1, 2003. A

copy of any notice will be provided to the United States at the same time. Notice for the purposes of this Section shall include a written description of the scope of the dispute, with sufficient detail to provide the States with an understanding of the substance of the dispute and all related issues, a description of all attempts to resolve the dispute and sufficient information for the other States to identify the technical skills that should be possessed by potential arbitrators necessary to resolve the dispute. Upon receipt of notice, each State has five business days to amend the scope of the dispute in writing to address additional issues. If unforeseen issues are identified after the deadline for amending the scope of the dispute, they may be added upon agreement of the States or at the discretion of the arbitrator.

b. Selection: Upon receipt of notice of a dispute, the States shall confer within the deadlines set forth below to choose an arbitrator(s) and the States will in good faith attempt to agree on an arbitrator(s).

   i. Within seven business days of receipt of the initial notice, each State shall submit the

names of proposed arbitrators, including qualifications, to the other States. Within seven [22] business days of receipt of the proposed names, the States will meet, in person or by telephone conference, and confer to agree on an arbitrator(s).

ii. If the States are unable to agree on an arbitrator(s), within seven business days each State will propose an arbitrator(s), not to exceed two and shall submit the proposed names to the other States and the United States in writing within the time set forth below. Upon receipt of each State's list of proposed arbitrators, within seven business days each State will rank and comment on each proposed arbitrator and submit those comments in writing to the Special Master. The United States, as amicus, may submit rankings and comments to the Special Master. The Special Master will initially eliminate any proposed arbitrators from consideration based upon objections by any State of conflict and/or bias. If all of a State's choices are

eliminated by conflict and/or bias, a State may submit the name of an additional arbitrator and each State and the United States may provide comments and objections based on conflict and/or bias within a time limit set by the Special Master.

iii. Any person submitted as a possible arbitrator by any State shall not be an employee or agent of any State, [23] shall be a person knowledgeable in groundwater modeling, and shall disclose any actual or potential conflict of interest and all current or prior contractual and other relationships with any person or entity who could be directly affected by resolution of the dispute. Any person who has a contractual relationship with any State shall be automatically disqualified for conflict of interest unless the other States expressly agree in writing to submission of that person's name to the Special Master. Any other contested claims of conflict or bias will be resolved by the Special Master.

iv. The Special Master will then choose an arbitrator(s) from the remaining non-conflicted choices.

c. First Arbitration Meeting: Upon selection of an arbitrator(s), the arbitrator(s) shall, within seven business days, hold an initial meeting or conference with the States and the United States, as amicus, to determine a schedule and procedures for exchange of information necessary to resolve the dispute, and for submission and resolution of the pending dispute. The arbitrator(s) may also include disputes arising under Subsection IV.C.4. The arbitrator(s) will be subject to the Confidentiality Agreement dated October 19, 2001, signed by the States and the United States.

[24] d. Costs: The arbitrator(s)' costs shall be paid equally by the States, subject to appropriations by the States' respective legislatures. Each State and the United States, as amicus, shall bear its own costs.

e. Reporting: The arbitrator(s)' decision will be provided to the States and the United States, as amicus, within ten business days of the close of submissions to the arbitrator(s) unless

otherwise shortened or extended by agreement of all of the States. The arbitrator(s)' written report of decision and findings will be submitted to the States and the United States, as amicus, within thirty days of providing the arbitrator(s)' decision.

f. Implementation: If the dispute is one involving the ongoing work of the Modeling Committee, the decision of the arbitrator(s) as to the resolution of the dispute shall be implemented by the Modeling Committee and their efforts shall proceed. If the dispute resolves the final RRCA Groundwater Model, the decision of the arbitrator(s) as to the final RRCA Groundwater Model shall be adopted by the RRCA for the purposes of Compact accounting.

D. Except as described in Subsection V.B., all Compact accounting shall be done on a five-year running average in accordance with the provisions of the RRCA Accounting Procedures, attached as Appendix C. Flood flows will be removed as specified in the RRCA Accounting Procedures.

[25] E. The States agree to pursue in good faith, and in collaboration with the United States, system improvements in the Basin, including measures to improve the ability to utilize the water supply below Hardy, Nebraska on the main stem. The States

also agree to undertake in collaboration with the United States a system operations study and after completion of the study the States will revisit the five-year running average set forth in Subsection IV.D.

F. Beneficial Consumptive Use of Imported Water Supply shall not count as Computed Beneficial Consumptive Use or Virgin Water Supply. Credit shall be given for any remaining Imported Water Supply that is reflected in increased stream flow, except as provided in Subsection V.B. Determinations of Beneficial Consumptive Use from Imported Water Supply (whether determined expressly or by implication), and any Imported Water Supply Credit shall be calculated in accordance with the RRCA Accounting Procedures and by using the RRCA Groundwater Model.

G. Measurement techniques, data collection and reporting to facilitate implementation of the Stipulation are set forth in the RRCA Accounting Procedures.

H. Augmentation credit, as further described in Subsection III.B.1.k., shall be calculated in accordance with the RRCA Accounting Procedures and by using the RRCA Groundwater Model.

V. Guide Rock

A. Additional Water Administration

1. To provide for regulation of natural flow between Harlan County Lake and

Superior-Courtland Diversion Dam, Nebraska will [26] recognize a priority date of February 26, 1948 for Kansas Bostwick Irrigation District, which is the same priority date as the priority date held by the Nebraska Bostwick Irrigation District's Courtland Canal water right.

2. When water is needed for diversion at Guide Rock and the projected or actual irrigation supply is less than 130,000 Acre-feet of storage available for use from Harlan County Lake as determined by the Bureau of Reclamation using the methodology described in the Harlan County Lake Operation Consensus Plan attached as Appendix K to this Stipulation, Nebraska will close junior, and require compliance with senior, natural flow diversions of surface water between Harlan County Lake and Guide Rock. A description of the implementation of the water administration obligations in this Subsection V.A.2. is attached hereto as Appendix L. The RRCA may modify Appendix L in any manner consistent with this Stipulation and the Compact.

3. Nebraska will protect storage water released from Harlan County Lake for delivery at Guide Rock from surface water diversions.

4. Kansas and Nebraska, in collaboration with the United States, agree to take actions to minimize the bypass flows at Superior-Courtland Diversion Dam. A description of the process for meeting the obligations in this Subsection V.A.4. is attached hereto as Appendix L. The RRCA may modify this process in any manner consistent with this Stipulation and the Compact.

[27] B. Water-Short Year Administration

1. Identification of Water-Short Year Administration:

a. Water-Short Year Administration will be in effect in those years in which the projected or actual irrigation supply is less than 119,000 acre feet of storage available for use from Harlan County Lake as determined by the Bureau of Reclamation using the methodology described in the Harlan County Lake Operation Consensus Plan. If system operations enhancements below Harlan County Lake increase the useable supply to the Bostwick Irrigation Districts, the trigger for Water-Short Year Administration will be adjusted as agreed to by the States and the United States in order to equitably share the benefits of such

enhancements. Following the determination that Water-Short Year Administration is in effect, the States will take the actions described in Subsections V.B.2-4.

b. Each year between October 1 and June 30, the Bureau of Reclamation will provide each of the States with a monthly or, if requested by any one of the States, a more frequent update of the projected or actual irrigation supply from Harlan County Lake for that irrigation season. The determination that Water-Short Year Administration is in effect, pursuant to Subsection V.B.1.a., will become final for that year as of June 30.

[28] 2. Nebraska action in Water-Short Year Administration:

a. During Water-Short Year Administration, Nebraska will limit its Computed Beneficial Consumptive Use above Guide Rock to not more than Nebraska's Allocation that is derived from sources above Guide Rock, and Nebraska's share of any unused portion of Colorado's Allocation (no entitlement to Colorado's unused Allocation is implied or expressly granted by this provision). To accomplish this

limitation, Nebraska may use one or more of the following measures:

i. supplementing water for Nebraska Bostwick Irrigation District by providing alternate supplies from below Guide Rock or from outside the Basin;

ii. adjusting well allocations for alluvial Wells above Guide Rock;

iii. adjusting multi-year well allocations for non-alluvial Wells above Guide Rock;

iv. reducing use of storage by Nebraska Bostwick Irrigation District above Guide Rock;

v. dry year leasing of water rights that divert at or above Guide Rock, or;

vi. any other measures that would help Nebraska limit Computed Beneficial Consumptive Use above Guide Rock to not more than that portion [29] of Nebraska's allocation that is derived from sources above Guide Rock and would (1) produce water above Harlan County Lake; (2) produce water below Harlan County Lake and above

Guide Rock that can be diverted during the Bostwick irrigation season; or (3) produce water that can be stored and is needed to fill Lovewell Reservoir.

b. Nebraska may offset any Computed Beneficial Consumptive Use in excess of its Allocation that is derived from sources above Guide Rock with Imported Water Supply Credit. If Nebraska chooses to exercise its option to offset with Imported Water Supply Credit, Nebraska will receive credit only for Imported Water Supply that: (1) produces water above Harlan County Lake; (2) produces water below Harlan County Lake and above Guide Rock that can be diverted during the Bostwick irrigation season; (3) produces water that can be stored and is needed to fill Lovewell Reservoir; or (4) Kansas and Nebraska will explore crediting water that is otherwise useable by Kansas.

c. During Water-Short Year Administration, Nebraska will also limit its Computed Beneficial Consumptive Use in the Sub-basins to the sum of Nebraska's specific Sub-basin Allocations and 48.9% of the sum of the Unallocated

Supply from those same Subbasins.

[30] d. In years projected to be subject to Water-Short Year Administration, Nebraska will advise the other States and the United States no later than April 30 of measures Nebraska plans to take for that year and the anticipated water yield from those measures. In each Water-Short Year Administration year, Nebraska will advise the other States and the United States no later than June 30 of the measures it has taken or will take for the year and the anticipated water yield from those measures.

e. For purposes of determining Nebraska's compliance with Subsection V.B.2.:

i. Virgin Water Supply, Computed Water Supply, Allocations and Computed Beneficial Consumptive Use will be calculated on a two-year running average, as computed above Guide Rock, with any Water-Short Year Administration year treated as the second year of the two-year running average and using the prior year as the first year; or

ii. as an alternative, Nebraska may submit an Alternative Water-Short Year Administration Plan to the RRCA in accordance with the procedures set forth in Appendix M. The RRCA may modify Appendix M in any manner consistent with this Stipulation and the Compact.

[31] f. If, in the first year after Water-Short Year Administration is no longer in effect, the Compact accounting shows that Nebraska's Computed Beneficial Consumptive Use as calculated above Guide Rock in the previous year exceeded its annual Allocation above Guide Rock, and, for the current year, the expected or actual supply from Harlan County Lake, calculated pursuant to Subsection V.B.1.a., is greater than 119,000 Acre-feet but less than 130,000 Acre-feet, then Nebraska must either make up the entire amount of the previous year's Computed Beneficial Consumptive Use in excess of its Allocation, or the amount of the deficit needed to provide a projected supply in Harlan County Lake of at least 130,000 Acre-feet, whichever is less.

g. If in any month during the year, the projected or actual irrigation supply from Harlan County Lake is equal to or greater than 119,000 Acre-feet, Nebraska may, at its discretion, cease the administrative action called for in this agreement in Subsection V.B.2.a.; provided, however, that any Alternative Water-Short Year Administration Plan shall be subject to the requirements set forth in Appendix M.

3. Colorado action: In those years when Water-Short Year Administration is in effect, Colorado agrees to limit its use of the flexibility identified in Subsection IV.B., to the extent that any portion of Colorado's Allocation from [32] Beaver Creek cannot be used on any other Sub-basin in Colorado.

4. Northwest Kansas action: In those years when Water-Short Year Administration is in effect, Kansas agrees to (1) measure compliance in Northwest Kansas on a two-year average, using the current and the previous year, and (2) limit Computed Beneficial Consumptive Use in the Sub-basins to the sum of Kansas' specific Sub-basin Allocations and 51.1% of the sum of the Unallocated Supply from those same Sub-basins and 51.1% of any unused portion of Colorado's Allocation (no

entitlement to Colorado's unused Allocation is implied or expressly granted by this provision), or determine compliance in such other manner as agreed to by the RRCA.

VI. Soil and Water Conservation Measures

A. For the purposes of Compact accounting the States will calculate the evaporation from Non-Federal Reservoirs located in an area that contributes run-off to the Republican River above Harlan County Lake, in accordance with the methodology set forth in the RRCA Accounting Procedures.

B. In order to attempt to develop information that may allow the States to assess the impacts of Non-Federal Reservoirs and land terracing on the water supply and water uses within the Basin, the States agree to undertake a study, in cooperation with the United States, of the impacts of Non-Federal Reservoirs and land terracing on the Virgin Water Supply.

1. The States, in cooperation with the United States, shall form a committee by January [33] 31, 2003, to be known as the Conservation Committee. By April 30, 2004, the Conservation Committee will:

a. Evaluate the available methods and data relevant to studying the impacts of Non-Federal Reservoirs

and land terracing practices on water supplies, including a review of any existing studies and their applicability to the Basin;

b. Determine the general types of data that are available and relevant to the study;

c. Determine the availability of data throughout the Basin, and assess the level of accuracy and precision of the data;

d. Agree on standards for data;

e. Identify additional data necessary to determine the quantitative effects of Non-Federal Reservoirs and land terracing practices on water supply;

f. Propose a methodology for assessing area-capacity relationships for Non-Federal Reservoirs; and

g. Submit to the RRCA a proposed study plan to determine the quantitative effects of Non-Federal Reservoirs and land terracing practices on water supplies, including whether such effects can be determined for each Designated Drainage Basin.

2. Following the RRCA's acceptance of the proposed study plan described in

Subsection VI.B.1.g., the States and the United States [34] will undertake the study at a cost not to exceed one million dollars of which the United States will be responsible for 75% of the cost and each State will be responsible for one third of the remaining 25%. The States' portion may be provided entirely through in-kind contributions. If the cost of the study exceeds one million dollars, the United States will be responsible for the entire additional amount. The States, in cooperation with the United States, shall agree upon the timetable for the completion of such study, which shall be completed within five years of the date the proposed study plan is accepted by the RRCA.

3. Participation in the joint study does not commit any State or the RRCA to take any action or to include soil and water conservation measures in Compact accounting. Each State specifically reserves its position that it need not account for conservation measures as a Beneficial Consumptive Use under the Compact.

4. Participation in the joint study by the States or the United States is contingent upon the appropriation of funds by their respective State Legislatures and Congress. Participation by the States in this study is contingent upon

participation and funding by the United States in accordance with this Subsection VI.B.

VII. Dispute Resolution

A. Initial Submission to the RRCA:

1. Any matter relating to Republican River Compact administration, including administration [35] and enforcement of the Stipulation in which a State has an Actual Interest, shall first be Submitted to the RRCA. The United States and its agencies may attend all meetings of the RRCA. Proposed agendas, including any regular issue that may be raised, shall be distributed by the chairperson to all RRCA members at least 30 days in advance of any regular meeting and as soon as possible prior to any special meeting.

2. Each member of the RRCA shall have one vote on each issue Submitted to the RRCA. RRCA action must be by unanimous vote. Action of the RRCA shall be by formal resolution or as reflected in the approved minutes. A request for formal resolution may be made by any member.

3. Any dispute that the State raising the issue for RRCA determination believes requires immediate resolution shall be designated as a "fast-track" issue. Any

"fast-track" issue will be Addressed by the RRCA within 30 days of being Submitted to the RRCA unless otherwise agreed to by all States. Nothing in this Section shall prohibit the RRCA from Addressing a dispute prior to the expiration of the 30-day period.

4. Any dispute which the State raising the issue for RRCA determination believes does not require immediate resolution shall be designated as a "regular" issue. Any "regular" issue raised no later than 30 days prior to the next regularly scheduled meeting will be Addressed by the RRCA at that meeting.

[36] 5. The RRCA will hold regular meetings pursuant to its rules and regulations. Specially scheduled meetings to address any issue that is Submitted to the RRCA and designated as a "fast-track" issue or for any other emergency purposes shall be held if requested by any member. All members shall make a good faith effort to arrange a mutually agreeable date, time, and place for all meetings. A meeting may be conducted only when all members or their designees are available to attend. In the event a member requests a specially scheduled meeting to address a "fast-track" issue or for any other emergency purposes, such meeting shall be held as soon as reasonably possible, but in no event more than 30 days after the request is

made unless more time is agreed to by all members. If scheduling a meeting in person is not possible within 30 days of a request, the members may conduct a telephone conference or use other means available. If any such meeting is not held within thirty days because of the failure of any member other than the requesting member to attend or to agree to the date and place for the meeting, the State represented by the requesting member shall be relieved of any obligation to submit any dispute to the RRCA for potential consideration and resolution pursuant to the Stipulation.

6. Any issue Submitted to the RRCA by a State will include a specific definition of the issue, supporting materials and a designated schedule for resolution.

7. The RRCA will attempt to resolve any dispute submitted to the RRCA pursuant to this [37] Section VII. If such a dispute cannot be resolved by the RRCA at the regular or special meeting at which the issue is addressed or within a schedule agreed to by all States, and the State raising the dispute desires to proceed, the dispute shall be submitted to non-binding arbitration unless otherwise agreed to by all States with an Actual Interest. The States involved in the dispute may agree that the arbitration shall be binding, but no State shall be

subject to binding arbitration without its express written consent.

B. General Dispute Resolution Provisions:

1. Unless otherwise agreed to by all States, non-binding arbitration shall be initiated as follows: Any State, pursuant to Subsection VII.A.7., may invoke arbitration by providing written notice to the other States. A copy of any notice will be provided to the United States at the same time. Notice for the purposes of this Section shall include the time frame designation, a written description of the scope of the dispute, with sufficient detail to provide the States with an understanding of the substance of the dispute and all related issues, and sufficient information for the other States with an Actual Interest to identify the technical skills that should be possessed by potential arbitrators necessary to resolve the dispute.

2. The arbitrator(s) shall be selected as follows: Upon receipt of notice of a dispute, the States shall confer within the deadlines set forth below to choose an arbitrator(s) and the States will in good faith attempt to agree on an arbitrator(s).

[38] 3. Any person submitted as a possible arbitrator by any State, or selected

by CDR Associates or other such entity, shall not be an employee or agent of any State, shall be a person generally knowledgeable of the principles of the issues in the dispute, and shall disclose any actual or potential conflict of interest and all current or prior contractual and other relationships with any person or entity who could be directly affected by resolution of the dispute. Any person who has a contractual relationship with any State shall be automatically disqualified for conflict of interest unless the other States expressly agree in writing.

4. The arbitrator(s)' decision shall include a determination of the merits of the dispute and determination of a proposed remedy.

5. The arbitrator(s)' decision shall be provided to the States and the United States by facsimile and mail or comparable means.

6. Within 30 days of the issuance of the arbitrator's decision, the States that are parties to the dispute shall give written notice to the other States and the United States as to whether they will accept, accept and reject in part, or reject the arbitrator's decision.

7. No State shall object to admission of the arbitrator(s)' decision in any subsequent proceedings before the Court, but no State shall assert that the decision is conclusive on any issue. Further, no State shall call the arbitrator(s) as a witness with regard to the dispute.

[39] 8. A State that has submitted a disputed issue to the RRCA and to arbitration as provided in this Section VII shall be deemed to have exhausted its administrative remedies with regard to such issue.

C. Fast Track Dispute Resolution Schedule:

1. Upon receipt of notice under Subsection VII.B.1., each State with an interest in the dispute will have ten business days to amend the scope of the dispute to address additional issues, unless all States agree to a longer schedule. If unforeseen issues are identified after the deadline for amending the scope of the dispute, they may be added upon agreement of all States or at the discretion of the arbitrator.

2. Within ten business days of receipt of the initial notice, each State shall submit the names of proposed arbitrators, including qualifications, to the other States. Within seven business

days of receipt of the proposed names, the States will meet, in person or by telephone conference, and confer to agree on an arbitrator(s). If the States with an Actual Interest cannot agree on an arbitrator(s), the selection of the arbitrator(s) will be submitted to CDR Associates, of Boulder, Colorado, or such other person or entity that may be agreed to by the RRCA. Every two years the RRCA will review the entity that will select an arbitrator(s), if the States cannot choose. The States will be bound by the selection of an arbitrator(s) by CDR Associates or such other person or entity.

[40] 3. Upon selection of an arbitrator(s), the arbitrator(s) shall, within seven business days, hold an initial meeting/conference with the States, to set the schedule for submission and resolution of the pending dispute. The arbitrator(s) shall set a schedule not to exceed six months unless the States agree otherwise. The States agree to provide all information, except privileged information, requested by the arbitrator(s).

4. The arbitrator(s) shall issue a decision resolving the dispute within the shortest reasonable time, not to exceed 60 days from the date of final submission by the State parties.

D. Regular Dispute Resolution Schedule:

1. The States with an Actual Interest will agree upon the schedule for amending the scope of the dispute.

2. The States will agree upon the method and schedule for selecting an arbitrator(s).

3. The States and the arbitrator(s) will agree on a schedule for submission and resolution of the pending dispute.

4. The States will agree on a schedule for issuance of a decision by the arbitrator(s).

VIII. Non-Severability of Agreement

The agreement of the States to the terms of this Stipulation is based upon the inclusion of all of the terms hereof, and the rights and obligations set forth in this Stipulation are not severable. If for any reason, the Court should decline to approve this Stipulation in the form presented, the entire Stipulation shall be null and void and the terms [41] of this Stipulation may not be used as evidence in any litigation between the States.

IX. Entirety of Agreement

This Stipulation and the Proposed Consent Judgment, together constitute the entire agreement among the parties hereto. No previous representations, inducements, promises or agreements, oral or otherwise, among the parties not contained in the documents identified in this paragraph or made in compliance with the requirements and obligations contained in the documents identified in this paragraph shall be of any force or effect. Nothing in this Section IX shall be construed as preventing the States from modifying the rules and regulations of the RRCA.

X. Retention of Jurisdiction by the Special Master

The Special Master shall retain jurisdiction until adoption of the RRCA Groundwater Model to:

A. Select an arbitrator, if necessary, pursuant to Subsection IV.C.9.b.ii. – iv.; and

B. Resolve disputes, not then subject to arbitration pursuant to Subsection IV.C.9., concerning the exchange and availability of data and information consistent with Subsection IV.C.4.

[42] State Approvals of Final Settlement Stipulation *Kansas v. Nebraska & Colorado*, No. 126, Original, United States Supreme Court

The undersigned Governors and Attorneys General for the States of Kansas, Nebraska and Colorado, having authority to commit the States to a final settlement, hereby commit the States to the terms of this Final Settlement Stipulation reached by their respective Settlement Negotiation Teams. Approval of this Final Settlement Stipulation is conditioned upon the inclusion of all of the terms herein, and the rights and obligations set forth in this Final Settlement Stipulation are not severable. If for any reason, the Special Master or the United States Supreme Court should decline to approve this Stipulation in the form presented, the approvals of the undersigned Governors and Attorneys General for the States shall be null and void.

/s/ Bill Graves
Governor,
State of Kansas

/s/ Carla J. Stovall
Attorney General
State of Kansas

/s/ Mike Johanns
Governor,
State of Nebraska

/s/ Don Stenberg
Attorney General
State of Nebraska

/s/ Bill Owens
Governor,
State of Colorado

/s/ Ken Salazar
Attorney General
State of Colorado

APPENDIX F

Exhibit A:
Changes to the Accounting Procedures

III A 3. Imported Water Supply Credit Calculation: The amount of Imported Water Supply Credit shall be determined by the RRCA Groundwater Model. The Imported Water Supply Credit of a State shall not be included in the Virgin Water Supply and shall be counted as a credit/offset against the Computed Beneficial Consumptive Use of water allocated to that State. Currently, the Imported Water Supply Credits shall be determined using two runs of the RRCA Groundwater Model:

a. The "base" run shall be the run with all groundwater pumping, groundwater pumping recharge, and surface water recharge within the model study boundary for the current accounting year turned "on." ~~This will be the same "base" run used to determine groundwater Computed Beneficial Consumptive Uses.~~

b. The "no NE import" run shall be the run with the same model inputs as the base run with the exception that surface water recharge associated with Nebraska's Imported Water Supply shall be turned "off." This will be the same "no NE import" run used to determine groundwater Computed Beneficial Consumptive Uses.

The Imported Water Supply Credit shall be the difference in stream flows between these two model

runs. Differences in stream flows shall be determined at the same locations as identified in Subsection III.D.1.for the "no pumping" runs.

Should another State import water into the Basin in the future, the RRCA will develop a similar procedure to determine Imported Water Supply Credits.

III D Calculation of Annual Computed Beneficial Consumptive Use

1. Groundwater

Computed Beneficial Consumptive Use of groundwater shall be determined by use of the RRCA Groundwater Model. The Computed Beneficial Consumptive Use of groundwater for each State shall be determined as the difference in streamflows using two runs of the model:

The "~~base~~no NE import" run shall be the run with all groundwater pumping, groundwater pumping recharge, and surface water recharge within the model study boundary for the current accounting year "on", with the exception that surface water recharge associated with Nebraska's Imported Water Supply shall be turned "off."

The "no State pumping" run shall be the run with the same model inputs as the ~~base~~"no NE import" run with the exception that all groundwater pumping and pumping recharge of that State shall be turned "off."

An output of the model is baseflows at selected stream cells. Changes in the baseflows predicted by the model between the "~~base~~no NE import" run and the "no-State-pumping" model run is assumed to be the depletions to streamflows. i.e., groundwater computed beneficial consumptive use, due to State groundwater pumping at that location. The values for each Sub-basin will include all depletions and accretions upstream of the confluence with the Main Stem. The values for the Main Stem will include all depletions and accretions in stream reaches not otherwise accounted for in a Sub-basin. The values for the Main Stem will be computed separately for the reach above Guide Rock, and the reach below Guide Rock.

*Taken from the August 12, 2010 Accounting Procedures

APPENDIX G
TO REPORT OF THE SPECIAL MASTER IN
STATE OF KANSAS
v.
STATE OF NEBRASKA and
STATE OF COLORADO
No. 126, Original

This Appendix summarizes the parties' shifting proposals and objections regarding how to remedy the mistake in the RRCA Accounting Procedures with respect to consumption of imported water.

Nebraska first proposed the five-run solution in June of 2007. (Schneider Direct re Counterclaim at ¶ 42; Tr. at 616-17 (Schneider); N1005 at 1, 73-77.)[1] In a responsive memo dated September 18, 2007, authored by Kansas expert Stephen Larson, Kansas opposed the proposal because it failed to satisfy a criterion that Kansas at the time called the "virgin water supply metric." (K127 at KS3895.) Under this criterion, the validity of an accounting system depended on the narrowness of the disparity between

---

[1] Page 1 of Exhibit N1005 states that one can find on page 13 of the cited attachment included in that exhibit a highlighted mark-up showing the precise language change proposed. In fact, there is no such page 13 numbered as such, nor any text elsewhere highlighting the changes. To ascertain the changes (and I do not suggest that the reader need now do so) one can refer to Appendix F.

two figures: (1) the sum of the usage assigned to the three states, individually, and (2) the usage projected to result from the simultaneous activities of the states. (*Id.*) The two figures can differ because, as discussed in Section VI.A.4.b.(ii) of the Report, the Model is not linear. Small amounts of water usage not assigned to any state, although the Model projects the usage to occur, have been referred to by the parties as "residuals" or "unaccounted impacts."

In the September 2007 memo, Kansas explained that Nebraska's proposal would cause a greater separation between the figures (*i.e.*, greater residuals). Nebraska responded by crafting a new proposal that not only minimized the disparity but eliminated it completely. Dubbed the "sixteen-run solution," Nebraska's revised proposal essentially did two entirely separate things: like the five-run solution, it corrected the mistake concerning the treatment of imported water; and, unlike the five-run solution, it also assigned to the respective states the residuals or unaccounted impacts. The resulting allocation of all water usage projected by the model to result from simultaneous pumping of the States has also been referred to as "additivity," which is another way of saying that the proposal fully satisfied Kansas' virgin water supply metric.

Having eliminated the objection Kansas had raised to the five-run solution, Nebraska might have expected Kansas to embrace the new proposal, or at least to accept it begrudgingly. Instead, Kansas reversed its position regarding the virgin water

supply metric. Kansas objected to the sixteen-run solution because "[t]he Compact does not require that [additivity] be met." (*See* Response to Expert Report of James C. Schneider, Ph.D., on Nebraska's Proposed Changes to the RRCA Accounting Procedures at 11 (March 15, 2012), attached as Exhibit A to Nebraska's Additional Comments to Kansas' Discovery Requests, *Kansas v. Nebraska*, No. 126 Orig. (February 13, 2013) (Dkt. No. 440) ("Kansas' Expert Report on the Sixteen-Run Solution").) Kansas rejected the notion that pursuing additivity was a "widely accepted scientific practice." (*Id.* at 10) Without any apparent sense of irony, Kansas accused Nebraska of having "set[ ] up an artificial standard and then proceed[ed] to show that the [current Accounting Procedures] fail to meet the artificial standard whereas the Nebraska proposed method does." (*Id.* at 10-11.)

Nebraska persisted in advocating only the sixteen-run solution through non-binding arbitration and well into the course of this original action, discussing the proposal at length in its expert reports filed in November of 2011 and continuing to support the proposal until April of 2012. By that time, Colorado had fully weighed in. In a detailed and convincing expert report authored by Dr. Schreüder, Colorado explained how the mistake in the Accounting Procedures could be simply fixed with changes identical to the five-run solution. Dr. Schreüder also convincingly explained how Kansas' (new) position was correct that elimination of residuals or unaccounted impacts (whether called the "virgin water metric" or

"additivity") was not called for by either the Compact or the FSS. (*See* C01, at 4-5, 9-10.)

At that point, as described in the transcripts of phone conferences conducted with counsel on May 16, 2012, and June 7, 2012, Nebraska belatedly dropped its advocacy for the sixteen-run solution and fell back to advocating its original, five-run solution. Nebraska announced this to me and to Kansas on May 16, 2012, while simultaneously announcing that it had entered into an agreement with Colorado pursuant to which Colorado supported adoption of the five-run solution. (Colorado's and Nebraska's Notice of Stipulation and Request for Status Conference, *Kansas v. Nebraska*, No. 126 Orig. (May 16, 2012) (Dkt. No. 216).) I later learned that Nebraska and Colorado had actually made their agreement on April 10, 2012, but chose to delay telling me or Kansas in an effort to see if a settlement could be reached.

Nebraska explained that, in its view, the fallback to the five-run solution caused no prejudice to Kansas because Kansas was aware of the five-run solution starting in 2007 and, more importantly, the proposal was simply a "subset" of the sixteen-run solution. Kansas objected to this characterization, claiming that the five-run solution was "truly a new claim requiring completely new expert analysis and new discovery." (Kansas' Motion for Reconsideration of Ruling on Timeliness or, in the Alternative, for Postponement of Trial on Nebraska's New Counterclaim, and for Other Relief at 11, *Kansas v. Nebraska*, No. 126 Orig. (June 15, 2012) (Dkt. 254).) Kansas argued

that the five-run solution relied on a new, uncalibrated baseline run of the Model that was not a critical element to be examined in the sixteen-run solution. *Id.* at 12. Kansas also claimed that other, "[n]ew analysis" was required in responding to the five-run solution, "including computer modeling, hydrologic and engineering investigations." *Id.* at 13. It is now clear that these claims were, at best, greatly exaggerated. The five-run solution was truly a subset of the sixteen-run solution, and contained the principal elements of the sixteen-run solution that were disadvantageous to Kansas. The same baseline was used in both, albeit to no material effect in the five-run solution as compared to the sixteen-run solution (*i.e.*, if the baseline was a concern, it was a bigger concern in the sixteen-run solution). And, when actually given the opportunity to conduct discovery and do the analysis it claimed was required, Kansas never did any such analysis even though Larson later admitted it would have been relatively straightforward to do so if his concerns about calibration were correct. (August 2013 Tr. at 10 (Larson).)

While I allowed Nebraska to drop its request for the sixteen-run solution and to seek the five-run solution as a remedy, I reserved for later consideration whether Nebraska had satisfied any obligations it had under the dispute resolution processes agreed to in the FSS. *See* Report of June 7, 2012, Telephone Conference of Counsel, ¶ 1, *Kansas v. Nebraska*, No. 126 Original (June 12, 2012 (Dkt. No. 236). Additionally, not then being in a position to assess Kansas'

claims of prejudice, I took them at face value, re-opening discovery by Kansas and pushing back to the eve of trial the deadline by which Kansas needed to furnish a report of its expert addressing the five-run proposal. (Order on Kansas' Motion for Reconsideration, *Kansas v. Nebraska*, No. 126 Orig. (July 13, 2012) (Dkt. No. 285).)

In Mr. Larson's August 2012 report and testimony, Kansas repeated its technical objections to the five-run solution. Kansas claimed that the proposal "uses a [b]aseline that is not [c]alibrated" and subject to considerable uncertainty. (*See* Kansas' Expert Report on the Sixteen-Run Solution at 3.) Larson claimed he still needed more time to do studies. (Tr. at 369-70 (Larson).)

After the nine-day hearing, Kansas submitted a post-hearing brief on September 24, 2012 and reply brief on October 15, 2012. (*See Kansas v. Nebraska*, No. 126 Orig. (Dkt. Nos. 382, 390).) In those briefs, Kansas mounted an entirely new argument on the accounting issue. Kansas claimed that the current Accounting Procedures do not effectively charge Nebraska with the consumption of imported water because any such consumption was fully offset by the separate credit to Nebraska for importing water. (Kansas' Post-Trial Reply Brief at 75-82, *Kansas v. Nebraska*, No. 126 Orig. (October 15, 2012) (Dkt. No. 390).) Consequently, Kansas contended, no correction was needed, and the five-run solution would constitute "double-dip[ping]." (*Id.* at 82.)

After reviewing the briefs and holding a conference with the parties on January 24, 2013, I issued a Case Management Order allowing further proceedings on Kansas' new argument and two other narrow issues that Kansas claimed warranted further analysis. (Case Management Order No. 9, *Kansas v. Nebraska*, No. 126 Orig. (January 25, 2013) (Dkt. No. 431).) Four months later, however, Kansas admitted that the new, "double-dipping" argument from its post-hearing briefing was without merit. Evidently, Kansas' counsel had crafted the argument without consulting the state's chief expert, Mr. Larson. (Corrected Transcript of Telephone Conference of May 23, 2013 at 14-15, *Kansas v. Nebraska*, No. 126 Orig. (Dkt. No. 476).)

Case Management Order No. 9 also permitted Kansas to present further evidence and argument on the calibration issue and on the related question of whether it was reasonable to use a baseline run that did not include "the Mound," the area in which imported water seeps into the Basin. (Case Management Order No. 9 at ¶ 1.2, *Kansas v. Nebraska*, No. 126 Orig. (January 25, 2013) (Dkt. No. 431).) But in subsequent proceedings, Kansas chose not to pursue the latter issue and largely dropped the former as well. Although Mr. Larson discussed the calibration issue in an expert report submitted on March 15, 2013, he testified at the subsequent hearing in August 2013 that it was "not unreasonable" to use a baseline that had not been calibrated, or a baseline that excluded the Mound. (August 2013 Tr. at 15-16,

Kansas v. Nebraska, No. 126 Orig. (Dkt. No. 499).) And Mr. Larson never did the studies Kansas claimed were necessary, or at least never mentioned them in his 2013 report or testimony. Unsurprisingly, Kansas' post-hearing brief did not raise the calibration argument or reference any new studies. (Kansas' Post Trial Brief, *Kansas v. Nebraska*, No. 126 Orig. (August 30, 2013) (Dkt. No. 500).)

Instead, Kansas chose at the August 2013 hearing to shift again the focus of its opposition. Kansas' presentation centered on two issues that were outside the scope of the hearing, as defined by Case Management Order No. 9, but on which I nevertheless allowed Kansas to present evidence and argument in the absence of any objection by Nebraska or Colorado. Kansas' first point, regarding the "bottom line" generated by the current Accounting Procedures, is discussed in Section VI.A.1 of the Report. Kansas' second point was the same it relied on in 2007 and dropped in early 2012: the five-run solution, Kansas said, "does not account for all stream flow depletions" and increases deviation from the virgin water supply metric. (*See* Kansas' Post-Trial Brief at 21, *Kansas v. Nebraska*, No. 126 Orig. (August 30, 2013) (Dkt. No. 500).) In yet another reversal, Kansas claimed that "the Compact requires that all depletions of stream flows be accounted for and allocated." (*Id.*)

In Mr. Larson's pre-hearing report, Kansas also presented its own proposed modification to the accounting procedures, which it called the "integrated

solution." I did not allow testimony on that proposed modification, which Kansas had begun working on in the spring of 2012 but did not disclose either before the August 2012 hearing or in late January 2013 when I set the scope of supplemental discovery and proceedings. Even as presented in May of 2013, the integrated solution was incomplete. For example, Kansas did not show how the concept of the integrated solution would actually be reflected in the technical language of the Accounting Procedures. Finally, there is no claim in this case that the treatment of residuals in Compact accounting is the product of any mutual mistake of any type.

APPENDIX H
TO REPORT OF THE SPECIAL MASTER IN
STATE OF KANSAS
v.
STATE OF NEBRASKA and STATE OF COLORADO
No. 126, Original

This Appendix summarizes each step of Kansas' damages presentation, in turn, along with Nebraska's chief objections to the analysis.[1]

Kansas' damages presentation was structured in three parts. First, Dale Book, a consulting civil engineer who specializes in water resources, calculated how the water supply unavailable to Kansas (*i.e.*, the amount of overuse by Nebraska) would have been delivered to and used by water irrigators in Kansas if Nebraska had been in compliance with the Compact. (K5.) Second, Norman Klocke, who holds a Ph.D. in Irrigation Engineering, determined crop yields based on the hypothetical water deliveries calculated by Book, using a crop production function showing the

---

[1] For further details, reference should be made to the following evidentiary material: the Book report (K5); the Klocke report (K99); the Hamilton-Robison Report (K105); the Sunding report (N6003); Book's Direct Testimony; Klocke's Direct Testimony; Hamilton's Direct Testimony; Robison's Direct Testimony; Sunding's Direct Testimony; and Riley's Direct Testimony. Kansas' damages analysis was also extensively discussed during cross-examination of these witnesses.

relationship between irrigation and crop yield. (K99.) Third, Joel Hamilton, who holds a Ph.D. in Agricultural Economics, and M. Henry Robison, who holds a Ph.D. in Economics, quantified the size and value of the crop diminishment due to the loss of water, and the economic value of that lost harvest to Kansas farmers and vendors. (K105.) Ultimately, Kansas' damages theory leads Kansas to request that the Court require Nebraska to pay in damages $5,126,992 (in 2012 dollars). (K105 at KS566.)

A. Step One: Book's Analysis of the "Required Water"

The first step in Kansas' damage analysis was the calculation of: (1) the amount of water that would have been delivered to the Kansas state line if the Compact violation had not occurred, and (2) the amount of that water that would have been delivered to Kansas farms for needed irrigation if the Compact violation had not occurred. (Book Direct at 14, 16; K5 at 3-6.) Kansas refers to this as the "required water."

The "required water" analysis was performed by Book. Book holds a master's degree in civil engineering, with a specialty in water resources. (Book Direct at 3.) Book has been a consulting water resources engineer specializing in hydrology, water resources engineering, and water rights engineering for more than 30 years. (*Id.* at 3-4.) He has provided expert testimony regarding water resources and water rights

engineering in previous cases, including *Kansas v. Colorado*, No. 105 Original. (*Id.* at 4-5.)

B. Calculation of Amount of Water Delivered to the Kansas State Line

As a starting point to his analysis, Book accepted the stipulation of Kansas and Nebraska that the amount by which Nebraska's consumption of water exceeded its Compact allocation in 2005 was 42,860 acre-feet. (K5 at 1, 12.) For 2006, he then assumed that the gross overconsumption calculated initially under the RRCA Accounting Procedures (36,100 acre-feet) should not be adjusted for either reallocating half of Harlan County Lake's evaporation or changing the Accounting Procedures as requested by Nebraska in its counterclaim. (*Id.*; Book Direct at 31.) Finally, he also assumed that, had Nebraska not exceeded its Compact allocation, all of the 78,960 acre-feet of water would have been regulated through Harlan County Lake and made available to Kansas during the irrigation season. (Book Direct at 14; K5 at 3.)

Nebraska challenges all of these assumptions. First, as a legal matter, Nebraska argues that the evaporation from Harlan County Lake should be fully allocated to Kansas. Second, relying on the analysis of James Schneider, who holds a Ph.D. in Geology (Schneider Direct re Future Compliance at ¶ 4) and Willem Schreüder, who holds Ph.D.s in Applied Mathematics in Computational Fluid Dynamics and Computer Science in Parallel Systems (Schreüder

Direct at 2), Nebraska contends that the Accounting Procedures should be changed for 2006 to avoid including Imported Water Supply in Nebraska's Computed Beneficial Consumptive Use. These objections are separately addressed at Sections VI.A and B of the Report. Third, Nebraska takes the position that much of the water would not have been available to Kansas during the irrigation season. (*See* N6003 at 77-78 of 88; Tr. at 955-56 (Riley).) This contention is based on the analysis of Thomas Riley, a water resources and environmental engineer with a Masters in Civil Engineering (Riley Direct at ¶¶ 3-4), who argues that two of Kansas' own expert reports show that over 19,000 acre-feet of water would not have been available to route through Harlan County Lake to Kansas farms during the irrigation season (N6003 at 78 of 88; Tr. 953 (Riley)).

Using his assumed quantity of overuse, Book then calculated the amount of water that would have reached the Kansas state line. (Book Direct at 14-16; K5 at 3-4.) Book calculated the additional net evaporation as 1,341 acre-feet in 2005 and 2,717 acre-feet in 2006. (Book Direct at 15; K5 at 4. 28.) Book also calculated the additional transit loss in the Courtland Canal as 3,743 acre-feet in 2005, and 1,706 acre-feet in 2006. (Book Direct at 15; K5 at 4, 32.) Taking into account these losses, Book calculated that the total water that would have reached the state line would total approximately 69,500 acre-feet: 37,776 acre-feet in 2005, and 31,677 acre-feet in 2006. (Book Direct at 16; K5 at 4, 32.)

C. Calculation of Amount of Water Delivered to Kansas Farms

Using the amount of water that would have reached the state line, Book then calculated the amount of water that would have reached the farms for needed irrigation – the so-called "required water." (Book Direct at 16.) After estimating additional seepage and evaporation losses that would have occurred in transit, Book calculated that the farm deliveries would have increased by 20,934 acre-feet in 2005 and 18,079 acre-feet in 2006. (Book Direct at 20; K5 at 6, 23, 26.)

Book then added an additional amount for return flows. Return flows consist of surface flows and groundwater flows back to the river after irrigation. (Book Direct at 22.) To take account of return flows, Book calculated: (1) the amount of return flow due to the additional supply; (2) the timing and location of the return flows; and (3) based on historical practice and the amount and timing of return flows, the amount of additional supply. (Book Direct at 23-26; K5 at 7-9.) These calculations involved consideration of the transmissivity of the geology as well as the drain system; Book assumed uniform transmissivity and drainage. (Book Direct at 24-25; Tr. 167, 170-71 (Book).) Nebraska faults Book for lack of precision; according to Nebraska, Book should have considered the actual drainage structure in KBID, which shows a non-uniform drainage system, and should have considered the non-uniform geology of KBID. Kansas' witnesses acknowledged both the non-uniform

drainage system and non-uniform geology. (*See* Tr. at 84 (Ross), 168-169, 172-73 (Book), 1075 (Nelson), 1123 (Brzon).) Nevertheless, according to Book, gross return flows would have been approximately 15,000 acre-feet in 2005 and 12,300 acre-feet in 2006. (Book Direct at 26; K5 at 8.) Using these numbers, Book concluded that the return flow during the relevant irrigation seasons would have been 14,775 acre-feet in 2005 and 11,540 acre-feet in 2006. (Book Direct at 26; K5 at 8.)

For calculating this return flow during the irrigation season, Book assumed that the irrigation season lasted from May to September. (Tr. at 179 (Book).) Nebraska takes exception to this assumption, on the basis that the irrigation season runs from mid-June through August according to two of Kansas' own witnesses. (*See* Tr. at 70 (Ross); Tr. at 1065 (Nelson).)

According to Book, not all of the return flows would have been available to farmers, as Minimum Desirable Streamflow ("MDS") administration would have been in place in Kansas, pursuant to which only "senior" irrigators could utilize return flows. (Book Direct at 27-28; K5 at 8.) The diversions by senior irrigators of return flows would have been only approximately 3,800 acre-feet for the two years: 1,727 acre-feet in 2005, and 2,104 acre-feet in 2006. (Book Direct at 29-30; K5 at 8-9, 26.) The total additional on-farm water supply, as calculated by Book, is therefore 42,844 acre feet: 22,661 acre-feet in 2005, and 20,183 acre-feet in 2006 (Book Direct at 30; K5 at 9.)

Displayed in chart format, Book's calculated additional total on-farm delivery is as follows.

	2005 (A/F)	**2006 (A/F)**	**Two-Year Total (A/F)**
KBID	20,934	18,079	39,013
Return flows	1,727	2,104	3,831
Total	22,661	20,183	42,844

(Book Direct at 30; K5 at 9.)

Book assumed that all of this water would have been used at the farm regardless of precipitation. (K17 at 2.) Book did not take into account how actual precipitation patterns within Kansas Bostwick Irrigation District (KBID) would have affected the amount of water that would have been drawn from Harlan County Lake for irrigation purposes in KBID. (Tr. at 164-65 (Book); Tr. at 919-20 (Riley).) Nebraska points out that, according to Book, rainfall was on the order of 150% greater than average for June through August of 2005 (Tr. at 164 (Book); *see also* N6003 at 78-79 of 88), and claims that the effect of this high actual precipitation would have been to reduce the call for irrigation water, and therefore reduce the amount of required water (Riley Direct at ¶ 11; Tr. at 919 (Riley)). Nebraska also argues that Book assumes that too many acres would have been irrigated, because 2005 and 2006 would have been "water-restricted" years even if Nebraska had not overused water, and less acreage is irrigated in water-restricted years. (Tr. at 921-22 (Riley); Tr. at 1518-21 (Hamilton).) A "water restricted" year is a year in which less than a "full

supply" of 15" of irrigation water is available per acre. (Tr. at 193-94 (Book); Tr. at 1520 (Hamilton).)

D. Step Two: Klocke's Analysis of Crop Yield

The second step in Kansas' damage analysis was the calculation of crop yield differential, which Kansas then uses in its third step to calculate the economic losses resulting from irrigating with less water than would have been necessary to produce maximum yield in 2005 and 2006 in KBID and areas immediately downstream of KBID. (Klocke Direct at 9; K99 at 3.) Norman Klocke performed this analysis.

Klocke holds a Ph.D. in Irrigation Engineering. (Klocke Direct at 3.) Klocke is currently a professor emeritus of agricultural engineering at Kansas State University, as well as the University of Nebraska Lincoln. (*Id.*) Klocke has taught numerous courses and conducted research in areas relevant to this case, including crop simulation models and crop production functions. (*Id.* at 4-7.)

To calculate crop yield differential, Klocke used a "crop production function" known as the Cobb-Douglas Equation. (*Id.* at 7.) A crop production function is a "mathematical relationship between the amount of irrigation water applied to a crop and the yield of that crop." (*Id.* at 8.) The Cobb-Douglas Equation depended on coefficients derived from CROPSIM, a crop simulation model. (*Id.* at 7-9.) Nebraska objects that CROPSIM is an agronomic rather than behavioral model and is therefore designed to describe a

biological response, not answer the question of how much of the required water actually would have been used. (*See* Tr. 1620-23 (Sunding); *see also* Tr. at 1461-62, 1501 (Klocke) (characterizing his analysis as "more an agronomic model" and noting that CROPISM "does not include the behavior of people").) Nebraska then takes exception to the parameters used by Kansas to answer that question.

Klocke's calculation of the yield differential depended on the following parameters:

-Actual irrigation applied ("D")

-Irrigation required for full yield ("D_f")

-Non-irrigated yield, *i.e.*, the yield from precipitation only ("Y_n")

-Maximum yield that a crop can produce if unrestricted by inputs such as fertilizer/ chemicals ("Y_f")

-Evapotranspiration increase from a non-irrigated crop to a fully irrigated crop, *i.e.*, the slope of the yield-evapotranspiration function ("b")

-Water use efficiency, *i.e.*, the application efficiency of the irrigation system ("beta")

(K99 at 4.)

Nebraska raises several objections to the manner in which Klocke utilized these parameters. First, as to Y_n, Nebraska claims that that Klocke was unclear on his definition of Y_n because he treated it differently

in his testimony than in his report. (*Compare* K99 at 4 ("Values for Y_n are as a result of growing a summer row crop that was not irrigated the year before.") *with* Tr. at 1444 (Klocke) ("non-irrigated yields would be the yields of the present year").) As Nebraska points out, Klocke did not determine whether the lands he considered "irrigated" for his analysis were or were not irrigated in the prior year. (*See* Tr. at 1444 (Klocke)). Second, as to beta, Nebraska argues that Klocke erred by assuming a 60% application efficiency rate rather than determining the efficiency of actual irrigation practices. (*See* Tr. at 1438-41 (Klocke) (agreeing that 60% was a "generalized value").) Some testimony suggests that actual efficiency may be as high as 95%. (Tr. at 66-67 (Ross).) Third, relying on the analysis of David Sunding, who holds a Ph.D. and has extensive experience in natural resource economics (Sunding Direct at ¶¶ 3-10), Nebraska raises more global objections. Sunding complains that Klocke erroneously assumed a single soil type, which affects every coefficient used by Klocke as all of them are sensitive to soil type variations. (*See* Tr. 1445-50 (Klocke) (acknowledging that his analysis was built on work that assumed a single soil type and that soil type affects the other parameters).) Sunding also takes exception to Klocke's failure to take into account actual precipitation, and his choice to instead assume average precipitation. (N6003 at 10-11 of 78; *see* Tr. at 1457-59, 1473 (Klocke) (admitting that he did not use actual precipitation for 2005 and 2006).) Sunding argues that it is impossible to arrive at a meaningful yield differential

for a given year without accounting for precipitation in that year because any time rainfall exceeds the average, the need for irrigation water diminishes. Stated another way, as total water increases, the change in yield decreases. (Tr. at 1703-04 (Klocke).) In turn, an inflated crop yield differential leads to higher damages. (*See* Tr. at 1652-54 (Sunding).) Sunding suggests that, as a result of these errors, the yield model is unrealistic when compared to actual yields. (N6003 at 11-14 of 88.)

E. Step Three: Hamilton and Robison's Analysis of Kansas' Economic Losses

The third step in Kansas' damages analysis was the determination of the economic impact on Kansas of Nebraska's overuse. This step involves comparing what the KBID farm sector looked like in 2005 and 2006 with what the KBID farm sector hypothetically would have looked like in 2005 and 2006 had the required water been available. (Hamilton Direct at 11-12.) This final step depends on the first two steps outlined above, as it uses Book's estimate of the amount of water available at the farm (the "required water") and Klocke's calculation of the crop yield function. (*Id.* at 11-13.) Hamilton and Robison performed the final step of Kansas' damage analysis.

Hamilton holds a Ph.D. in Agricultural Economics with a specialty in Econometrics. (Hamilton Direct at 3.) Hamilton's major research areas include the economics of water resources and regional economics.

(*Id.* at 3-6.) Hamilton has served as an expert witness in two previous interstate water compact cases. (*Id.* at 6-9.) Robison holds a Ph.D. in Economics and has extensive experience in applied regional input-output modeling. (Robison Direct at 3-7.)

In order to determine Kansas' economic loss, Hamilton and Robison first calculated the differential between the "gross crop revenue" for 2005 and 2006 with the required water and the "gross crop revenue" for 2005 and 2006 without the required water. (Hamilton Direct at 11-12.) To calculate gross crop revenue, Hamilton and Robison relied on assumptions regarding acreage and crop mix, yield differential, and crop prices. (*Id.* at 12.)

Acreage & crop mix. Hamilton first determined an actual acreage and crop mix for 2005-06 with a Compact violation, and then a hypothetical acreage and crop mix for 2005-06 without a Compact violation. (*Id.* at 11-12.) Hamilton derived the actual acreage from the KBID annual reports (*Id.* at 13; K105 at KS546), and derived the actual crop mix from annual irrigation survey conducted by KBID (Hamilton Direct at 13; K105 at KS546-47). The relationship between Hamilton's hypothetical acreage and crop mix for 2005 and 2006 was necessarily more attenuated. Hamilton derived the hypothetical acreage that would have been irrigated with the required water by referring to historic data on how farmers behaved without water restrictions. According to Hamilton, 89.1% of classified acres should have been irrigated. (Hamilton Direct, at 14; K105 at KS547.)

Sunding contends that this assumption was erroneous because 2005 and 2006 would have been "water-restricted" even if Nebraska had not violated the Compact, and that less acreage should therefore have been available in the but-for world. (*See* N6003 at 14 of 88.) Sunding also contends that the acreage assumption was erroneous because in years in which KBID actually delivered the amount of water assumed to be delivered, KBID irrigated significantly less than 89% of its acreage. (*See* N6003 at 14 of 89.) Hamilton derived the hypothetical crop mix by using the 2010 crop mix, which he concluded was the most representative year for determining the crop mix that would have been grown in 2005-2006. (Hamilton Direct at 14-15; K105 at KS547.)

Hamilton took into consideration the acreage that would have been used for dryland crops or entered into "prevented planning." (Hamilton Direct at 15.) First, Hamilton subtracted the acres that were actually irrigated from the acres that would have been irrigated, giving the acreage that had to shift to some non-irrigated alternative. (*Id.* at 17; K105 at KS548-49.) Then, Hamilton subtracted the acreage that was enrolled in prevented planting. (Hamilton Direct at 17; K105 at KS548-49.) Finally, Hamilton used the National Agricultural Statistics Service (NASS) dryland crop mix for allocations that had to be shifted to dryland because of water shortage (Hamilton Direct at 17; K105 at KS548-59.) Sunding takes issue with Hamilton's dryland crop parameters,

which he finds to be without justification. (N6003 at 15 of 88.)

Yield differential. Hamilton then calculated a yield for this acreage and crop mix using a yield differential. Yield differential was determined for three scenarios: (1) yields for crops grown under dryland conditions because of the water shortage; (2) yields for crops that were irrigated, but at a reduced application rate because of the water shortage; and (3) yields for crops that would have been grown if the required water had been delivered. (Hamilton Direct at 18.) Hamilton relied on Klocke's analysis for the yield differential. (*Id.* at 19; K105 at KS549-52.) On this point, Sunding criticizes the analysis because the modeled increases in yield are beyond the variation that could be expected and because there was no consideration of Klocke's work related to the actual yield data. (*See* N6003 at 11-14; 724-25.) Hamilton also relied on Book's analysis for the actual and required water. (Hamilton Direct at 20; K105 at KS550-51.) The actual and required water was allocated equally across all crops. (Hamilton Direct at 20.) Rejecting this assumption, Sunding contends that the water would not have been allocated equally, but rather would have been "stacked" (Tr. at 67-68 (Ross) (describing stacking); as a result, Sunding contends, Kansas' assumption inflates the loss in yield on those lands in which the additional water would have been applied (N6003 at 11 of 88).

Crop prices. Hamilton then multiplied the yield times price to determine gross crop returns. (Hamilton Direct at 24.) Hamilton utilized NASS prices for this calculation. (*Id.*)

Using the above calculations of acreage, crop mix, yield differential, and crop prices, Hamilton's calculated loss of gross crop revenue was $6,433,477. (*Id.* at 29.)

Relying on the gross crop revenue number, Hamilton and Robison next used crop budgets to partition the change in gross crop revenue into changes in spending on "produced inputs" (items produced in the economy purchased by farmers, *e.g.* fuel, seed, fertilizer) and changes in on-farm direct "value added" (gross crop value less spending on produced inputs). (Hamilton Direct at 12, 24.) Hamilton used these numbers to calculate the two parts of Kansas' loss: (1) on-farm direct loss, and (2) secondary loss. (Hamilton Direct at 26; K105 at KS552-63.) To make this calculation, Hamilton and Robison used Kansas State University's 2005 and 2006 crop budgets. (Hamilton Direct at 25; K105 at KS552-54.)

The first part of Kansas' loss was on-farm direct value added. (Hamilton Direct at 12, 26). Hamilton derived this number directly from the crop budgets. (*Id.* at 26-27; K105 at KS555-57.) The total loss of on-farm direct value added (*i.e.*, farm income lost) was $2,395,675. (Hamilton Direct at 29; K105 at KS557.) Broken into separate years, the loss of on-farm direct value added was $1,154,484 in 2005 and $1,241,191

in 2006. (K105 at KS606.) Nebraska suggests that this direct value-added calculation should be reduced to account for re-employment of production inputs and adaptation by Kansas farmers, given the lengthy drought (Tr. 1549-51 (Hamilton)) and given that the farmers are aware of the water supply situation when they make key decisions (Tr. 1062-63 (Nelson).)

The second part of Kansas' loss was secondary direct and indirect losses. (Hamilton Direct at 12.). To calculate secondary effects, Hamilton and Robison used a model called IMPLAN to calculate secondary direct (the income earned by the suppliers of the produced inputs), and secondary indirect (the income earned by the suppliers of the suppliers) value added. (Robison Direct at 13-14; Hamilton Direct at 26-27; K105 at KS559-63.) IMPLAN is an input-output model designed to examine the effects on the economy of a change in one or more economic activities. (K105 at KS000559; Robison Direct at 11-12.) Robison used IMPLAN for two calculations. First, Robison used IMPLAN to determine the Kansas portion of purchases from first-line suppliers (which Kansas refers to as "secondary direct effects") and convert the sales to value added. (Robison Direct, at 13; K105 at KS559-61.) The input for the IMPLAN model was the changes in spending on produced inputs derived from the crop budgets. (Hamilton Direct at 12, 26.) Robison used "regional purchase coefficients" to determine how much of the change in spending on produced inputs related to Kansas. (Robison Direct at 18.) Second, Robison also used IMPLAN to determine the

additional secondary effects, spanning the supply chain (referred to by Kansas as "secondary indirect effects"). (Robison Direct at 14; K105 at KS559-61.) Using IMPLAN, Robison calculated that the total secondary direct and indirect loss was $1,633,762. Broken into individual years, the losses were as follows: $841,726 in 2005 and $792,036 in 2006. (K105 at KS609.)

Nebraska objects to the use of IMPLAN for several reasons. Sunding suggests that IMPLAN is not suited for assessing actual damages, and is designed solely for forward-looking planning analysis. (*See* Tr. at 1672-75 (Sunding); N6003 at 31 of 88.) Sunding also complains that IMPLAN has no error rate, and depends entirely on the modeler to determine the reasonableness of the inputs. (*See* N6003 at 31-32 of 88; *see also* Tr. at 1558 (Hamilton).) Sunding also contends that Robison did not adequately consider the effect of interregional economic spillover from Nebraska into Kansas; according to Sunding, the additional economic activity in Nebraska as a result of Nebraska's overuse would have stimulated the economy in Kansas because of cross-border trade flows. (N6003 at 37-38 of 88.)

Lastly, Robison concluded that Nebraska suffered additional secondary consumer spending-induced losses, but also concluded that these losses would be made up by a payment from Nebraska for the on-farm direct and secondary direct and indirect losses. (K105 at KS563.)

The sum of the changes in on-farm direct value added (derived directly from the crop budgets), plus the changes in secondary direct and indirect value added (calculated by IMPLAN, with inputs from the crop budgets) is the measure of the total damages to Kansas. (Hamilton Direct at 13.) Taken together, the direct and secondary direct and indirect losses totaled $4,029,437; the loss in 2005 was $1,996,210, and the loss in 2006 was $2,033,227. (K105 at KS609.) After adjusting for the time value of money, Hamilton and Robison concluded that Kansas suffered the following losses, in 2012 dollars:

Losses	**2005**	**2006**	**Total**
On-farm direct	$1,501,007	$1,545,432	$3,046,438
Secondary direct & indirect	$1,094,374	$986,179	$2,080,553
Subtotal	$2,595,381	$2,531,611	$5,126,992
Secondary Consumer Spending – Induced	$707,729	$742,444	$1,450,174
Total	$3,303,110	$3,274,055	$6,577,165

(Hamilton Direct at 50; K105 at KS611.) In sum, therefore, according to Kansas, Nebraska's violation resulted in Kansas losses totaling $6,577,165. (Hamilton Direct at 50; K105 at KS566.) Kansas takes the position that Nebraska should pay $5,126,992, and the remainder would be made up by induced effects of

the payment. (Hamilton Direct at 50; K105 at KS566.)

APPENDIX I
TO REPORT OF THE SPECIAL MASTER IN

STATE OF KANSAS

v.

STATE OF NEBRASKA and
STATE OF COLORADO

No. 126, Original

This Appendix collects and summarizes the record evidence regarding the valuation of water.[1] The two primary sources of evidence regarding water values consist of, first, evidence of the market price differential between irrigated and non-irrigated land and, second, evidence regarding the sale of water. Some of these values represent values to the farmer. Others might be seen as, in part, reflective of values to the state, which would presumably include secondary effects. The evidence offered by the parties does not always make the distinction clear.

---

[1] The evidence that was proffered to show the value of an acre-foot of water is contained in the following: (1) the Sunding Report (Exhibit N6003 at 22-30 of 88); (2) Sunding's Direct Testimony (Sunding Direct at ¶¶ 27-32); (3) Exhibit K82, consisting of documents relating to Nebraska water purchases; (4) the Supalla Study (Exhibit K115); (5) the Hamilton Rebuttal Report (Exhibit K116 at 1-4); (6) Hamilton's Direct Testimony (Hamilton Direct at 49-60); (7) the trial transcript at pages 1623-38, 1655-56, and 1666-72; and (8) Exhibit N4002, consisting of documents relating to Nebraska water purchases.

A. Land Values

The first approach taken by Nebraska to prove the value of an acre-foot of water involved land values. According to Nebraska, "it is possible to infer the value of irrigation water by examining the difference in the market price of irrigated and non-irrigated farmland." (N6003 at 22 of 88.)

1. Calculation of Water Value for Purposes of Determining Kansas' Loss: Differential in Lease Prices Between Irrigated and Non-Irrigated Land in KBID

To counter Kansas' analysis of the loss to Kansas, Nebraska produced evidence regarding the differential in lease prices between irrigated and non-irrigated land in the Kansas Bostwick Irrigation District ("KBID"), derived from a Kansas State University publication of market rental rates. (*See* N6003 at 22-23, 25-26 of 88.) David Sunding, who holds a Ph.D. and has extensive experience in resource economics (Sunding Direct at ¶¶ 3-10), extrapolated the price of water from this evidence as follows.

Sunding first took the lease price differential between irrigated and non-irrigated cropland in KS, which was $34 per acre in 2005 and $33 per acre in 2006. (N6003 at 22 of 88.) Expressed in average terms, the lease price differential was $33.50 per acre. (*Id.*) Sunding then converted this lease price differential to units of water to determine a price per acre-foot. (*Id.*). Sunding assumed that each acre in

KBID would obtain 12" of irrigation water, based on the average irrigation requirement stated by Scott Ross, the regional Division of Water Resources Commissioner. Using this assumption, Sunding divided the lease price differential per acre by one acre-foot (12" of water per acre) to determine the price of an acre-foot of water. This approach leads to a price of $33.50 per acre-foot. (*Id.*)

According to Sunding, "[t]o obtain an estimate of direct loss, this observed market price is simply multiplied by the number of acre-feet lost at the farm level in Kansas as a result of Nebraska's overuse." (*Id.* at 25 of 88.) Sunding accepted Book's estimate of water that would have been delivered but for the overuse: 22,661 acre-feet in 2005 and 20,184 acre-feet in 2006. (*Id.* at 26 of 88.) Sunding then multiplied these estimates by the market price of $33.50, leading to a total damages number of $759,144 in 2005, and $676,165 in 2006. (*Id.*) The total loss, as calculated by Sunding, was therefore $1,435,309. Sunding conceded that, if the measure of the amount of shortfall was the shortfall at the state line (rather than the shortfall at the farm), then damages would be in the order of $2.3 million (assuming a shortfall of 70,000 acre-feet). (Tr. at 1672 (Sunding)). This total does not account for secondary impacts.

2. Calculation of Water Value for Purposes of Determining Nebraska's Gain

In addition to offering evidence as to the amount of Kansas' loss, Nebraska also introduced evidence, based on land values, regarding the valuation of water in Nebraska to counter Kansas' calculation of Nebraska's gain. (*See* N6003 at 28 of 88.)

a. Differential in valuations of agricultural lands in Nebraska

Nebraska, through Sunding, introduced evidence regarding the differential in valuations of agricultural lands, derived from the Nebraska Farm Real Estate Survey conducted by researchers at the University of Nebraska. (*Id.*) According to Sunding, analysis of the survey data suggests that the capitalized value of water in Nebraska agricultural land markets was approximately $600 to $800 per acre in 2011 dollars for 2005 and 2006. (*Id.*) Using this capitalized valuation, Sunding concluded that this survey data suggested a 2005 water value between $31.04 and $41.39 per acre-foot, assuming a 5% discount rate, average inflation of 2.5%, and an average water right of 10 acre-inches per acre. (*Id.*)

b. Differential in land sale prices in Nebraska

Sunding also introduced evidence regarding the differential in land sale prices in Nebraska, derived from a study titled "The Implicit Value of Irrigation Through Parcel Level Hedonic Price Modeling" by

Steven Schultz and Nick Schmitz. (N6003 at 28-30 of 88.) After comparing purchase prices of irrigated and non-irrigated land in the Upper, Middle, and Lower Republican regions between 2000 and 2008, the Schultz & Schmitz study determined a capitalized marginal price for irrigation on an acre of land. (*Id.* at 29 of 88.) That capitalized marginal irrigation price varied from $413 in the Lower Republican region, to $508 in the Middle Republican region, to $795 in the Upper Republican region. (*Id.*) Sunding then took these capitalized marginal irrigation prices, converted them into an annual value and discounted them for the time value of money. So modified, Sunding concluded that the marginal irrigation prices supported a finding that Nebraska farmers valued access to irrigation water at $18.06-$34.76 per acre. (*Id.* at 29-30 of 88.) Sunding then assumed that an average of one acre-foot of water was delivered to irrigated lands annually. Using this assumption, the value of water is between $18.06-$34.76 per acre-foot. (*Id.* at 30 of 88.)

Kansas sought to undercut this evidence by pointing to the analysis of Ray Supalla, an economist at the University of Nebraska. There is very little known about the Supalla Study, as the parties only addressed the study in passing. Kansas did not cite to the Supalla Study's valuation of water in the rebuttal to Sunding's report (K116), and Supalla's valuation of water was not mentioned until the cross-examination of Sunding (Tr. at 1633-34 (Sunding)).

The Supalla Study, published in August 2006, was "conducted as a public service for the Nebraska Department of Natural Resources." (K115 at 1.) The study was meant to identify "[t]he potential costs to irrigators, the state economy and the state budget for different methods of reducing consumptive use (CU) of irrigation water in the Republican Basin[ ]." (*Id.* at 2.) Supalla concluded that "[a] comparison of irrigated and dryland market values suggests that irrigation water is worth an average of $82 per acre per year in the Republican Basin." (*Id.*) This is the "cost of retiring irrigated acres in the Republican Basin." (*Id.* at 12.)

"The estimated per acre costs of retiring irrigated land were converted to a cost per acre-foot change in CU by dividing through by an estimate of CU per acre." (*Id.*) According to Supalla, "[t]he on-farm economic cost of using allocation to reduce consumptive use is equal to the difference in annual income that results from applying less water." (*Id.*) Supalla's conversion appears to be premised on irrigation at 10.2" per acre. (*Id.* at 12.) Further, Supalla assumed a 100,000 acre-foot reduction in usage to reach this figure. (*Id.* at 13.) According to Supalla, "the cost per acre-foot change in CU depends on how much the water supply (allocation) has to change to produce the desired effect, which in turn depends upon how many acres are regulated and on how much reduction in CU is needed." (*Id.*) Expressed on this basis, "[t]he on-farm cost of reducing consumptive use [was]

estimated to average $98 [per acre-foot] in the Republican Basin." (*Id.* at 2.)

B. Water Purchases

The second approach taken by Nebraska to support its valuation of an acre-foot of water involved looking at specific transactions involving water. This analysis was also contained in Sunding's expert report. Sunding discussed two transactions.

> ***Transaction 1***: In 2011, farmers rejected KBID's offer to sell an additional 6" of water at $33 per acre-foot for use on farms. (N6003 at 23 of 88.) This offer was made "late in the irrigation season." (Tr. at 1632 (Sunding).)
>
> ***Transaction 2***: In 2005, KBID chose to forego a diversion of 1,200 acre-feet of water for a purchase price of $12,000. (*See* N6003 at 23 of 88.) This was a small, "late-season" water infusion that could not be conveyed through the canals from Harlan County Reservoir efficiently and that could be held over in Harlan County Reservoir for the next year. (*See* Hamilton Direct at 56.)

Kansas, in turn, introduced evidence regarding Nebraska's purchase of water for Compact compliance purposes. As documented in a letter from Ann Bleed, Acting Director of the Nebraska Department of Natural Resources, Nebraska chose to purchase in 2006 an expected 23,518 acre-feet of water in three

transactions at an expected average cost of approximately $149 per acre-foot. (*See* K116 at 3; K82; K59.) This was a purchase for Compact compliance purposes. (*See* Tr. at 1669-70 (Sunding).) Nebraska agreed to purchase a certain amount, the "expected" water supply, at a certain price from the irrigation districts. The parties knew and agreed that the "actual" water supply might vary from the "expected" water supply, and it in fact did. As a result, the "actual" cost per acre-foot was somewhat higher than the "expected" cost per acre-foot. (*See* K116 at 3; K82; K59.) The purchases were as follows:

Irrigation District	Expected Water (A/F)	Purchase Price	Expected Cost per A/F	Actual Water (A/F)	Actual Cost per A/F
Frenchman Valley	6,400	$400,000	$63	3,672	$108.93
Riverside	2,000	$100,000	$50	1,256	$79.62
Bostwick	15,118	$3,000,000	$198	17,762	$168.90
Total/Avg.	23,518	$3,500,000	$148.82*	22,690	$154.25

* = correction of math error in Bleed letter (K. 82).

(K82; K116 at 3.) It should be noted that the above purchase chart, drawn from the letter from Ann Bleed, does not quite seem to match the actual contracts included in Exhibit K82. (*See also* N4002.) So, for instance, the contract with the Frenchman district suggests that the expected water purchase was 8,000 acre-feet, not 6,400 acre-feet. (K82 at DN6906.) That could significantly lower the expected cost per acre-foot. The expected costs, as stated in the contracts in evidence, are as follows:

Irrigation District	**Expected Water (A/F)**	**Purchase Price**	**Expected Cost per A/F**
Frenchman Valley	8,000	$400,000	$50
Riverside	2,000	$100,000	$50
Bostwick	Unknown	$2,500,000	Unknown
Total/Avg.	Unknown	$3,000,000	Unknown

(K82; N4002 at NE61551-68.)

Additionally, in 2007, Nebraska chose to purchase 49,400 acre-feet of water in four transactions at an expected average cost of approximately $287 per a/f. (*See* K82 at DNR7377; N4002 at NE61569-92.) In 2007, the purchases were as follows, according to Bleed:

Irrigation District	Expected Water (A/F)	Purchase Price	Expected Cost per A/F	Actual Water (A/F)	Actual Cost per A/F
Frenchman Valley	6,400	$640,000	$100	3,672	$174
Riverside	2,000	$120,000	$60	1,256	$96
Bostwick	15,000	$3,000,000	$200	17,762	$169
Frenchman Cambridge	26,000	$10,400,000	$400	11,960	$870
Total/Avg.	49,400	$14,160,000	$287	29,722	$476

(*See* K82 at DNR7377.) Again, however, it should be noted that the above purchase chart, drawn from the Bleed letter, does not quite seem to match the actual contracts included in Exhibit N4002. The "expected" costs, as stated in the contracts in evidence, are as follows:

Irrigation District	**Expected Water (A/F)**	**Purchase Price**	**Expected Cost per A/F**
Frenchman Valley	8,000	$640,000	$80
Riverside	2,000	$126,000	$63
Bostwick	12,500	$5,583,500	$446.68
Frenchman Cambridge	26,000	$7,785,000	$299.42
Total/Avg.	48,500	$14,134,500	$291.43

(N4002 at NE0061569-92.)

Despite the inconsistency in the evidence regarding specific transactions, the overall cost of Nebraska's water purchases is not in dispute. Brian Dunnigan, Director of Nebraska's Department of Natural Resources (Dunnigan Direct at ¶ 3), testified that from 2006 to 2008, Nebraska leased for Compact compliance purposes a total of 98,368 acre-feet of surface water at a total cost of approximately $18,722,500, effecting a reduction of 51,614 acre-feet in Nebraska's Computed Beneficial Consumptive Use (Dunnigan Direct at ¶ 26). Thus, for the years 2006 to 2008, Nebraska has purchased water for Compact compliance purposes at an average value of $190 per

acre-foot of water produced or $362 per acre-foot of reduced Computed Beneficial Consumptive Use.